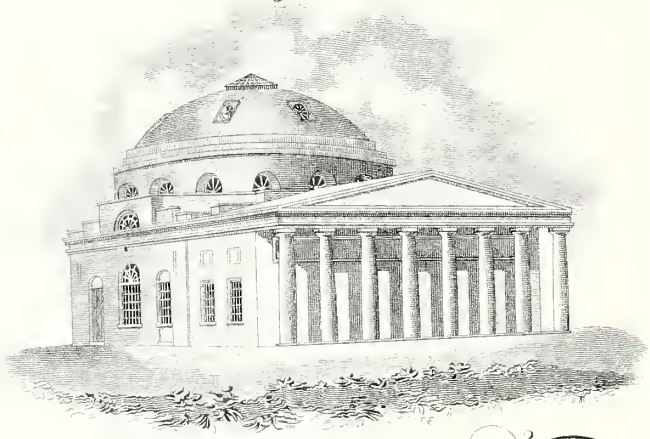
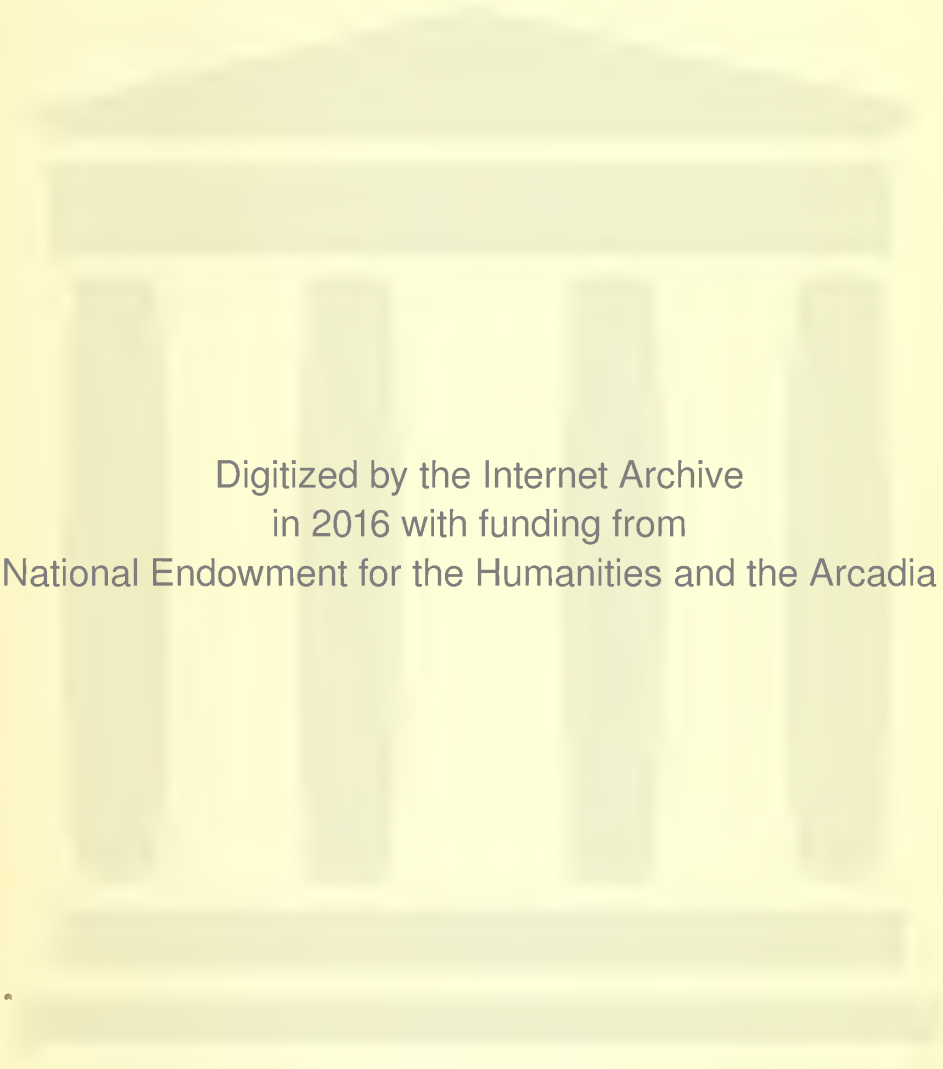
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The OHIO STATE MEDICAL JOURNAL

JANUARY, 1939
Vol. 35 Number 1



Hotel Commodore Perry, Toledo, where 93rd Annual Meeting of the State Association will be held, May 3 and 4. Right, Dr. A. A. Brindley, general chairman, Toledo Committee on Arrangements; Left, Dr. C. S. Mundy, president, Toledo Academy of Medicine.

The Ohio State Medical Journal

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Vol. 35 JANUARY, 1939 No. 1

JONATHAN FORMAN, M.D., *Editor*

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An "Autologous Fascia Suture" Technique in the Surgical Treatment of Direct Inguinal and Femoral Hernia

ROBERT C. AUSTIN, M.D., F.A.C.S.

IN surveying the voluminous literature describing the many techniques in the surgical treatment of hernia, one finds that the percentage of recurrences in direct hernia is high, the figures varying from 10 to 30 percent.

In appraising the cause for the high rate of failures, which implies the analysis of the various techniques that are popularly employed today, one is impressed with the apparent defects in the technique as applied to the problem of cure of direct hernia.

The major problem is in the establishment of an unyielding wall from the point of high transplantation of the cord to the pubis. That is axiomatic. The Bassini, the Ferguson and the Halsted techniques do not permit of such a result, as the emergence of the cord at the lower angle makes the repair vulnerable.

In 1902 Dr. J. L. McArthur first advocated the use of a fascia suture taken from the aponeurosis of the external oblique. Gallie in 1921 advanced the idea of fascia lata sutures, the employment of which has met with splendid results, particularly in the treatment of recurring inguinal and ventral hernia. Numerous writers have advocated the use of the Gallie suture in the treatment of direct hernia on the promise that an autogenous suture is best adapted to establish an unyielding aponeurotic wall.

The criticism of the Gallie technique in the treatment of a primary hernia is in the necessity of employing another operative procedure, though minor, on the leg to remove the fascia lata. Again, criticism may be voiced against the use of the large fascia needle which is usually employed in such a technique, because of the large openings made in the aponeurosis and Poupart's ligament.

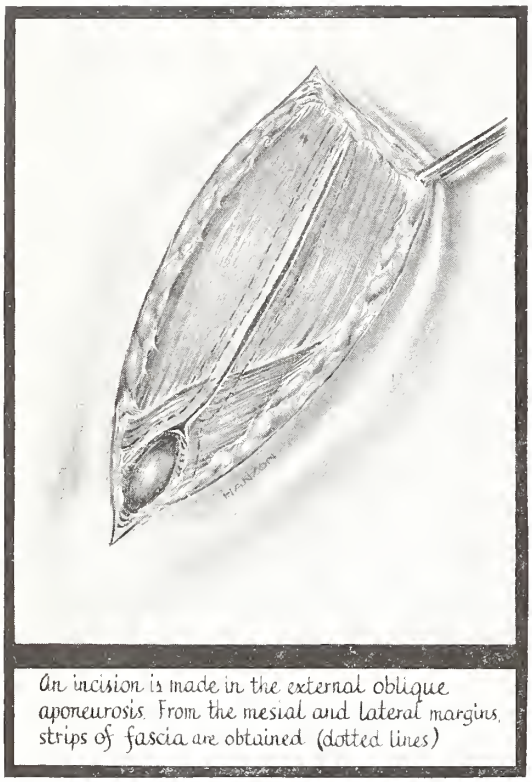
On the premise that "autologous fascia sutures" are available from the mesial and lateral borders of the incision in the aponeurosis, I employ the plan of utilizing three strips of fascia three to five millimeters wide (Illus. 1), leaving two attached below (Illus. 2) one to reinforce the suture of the conjoined tendon to Poupart's ligament (Illus. 3), according to the McArthur idea, and the other to reinforce the aponeurotic suture line. The strip remaining attached above reinforces the aponeurotic suture line above the cord (Illus. 4).

Criticism of the imbrication method in a bilateral herniotomy is met in this technique by the avoidance of tension. While we were ready a

The Author

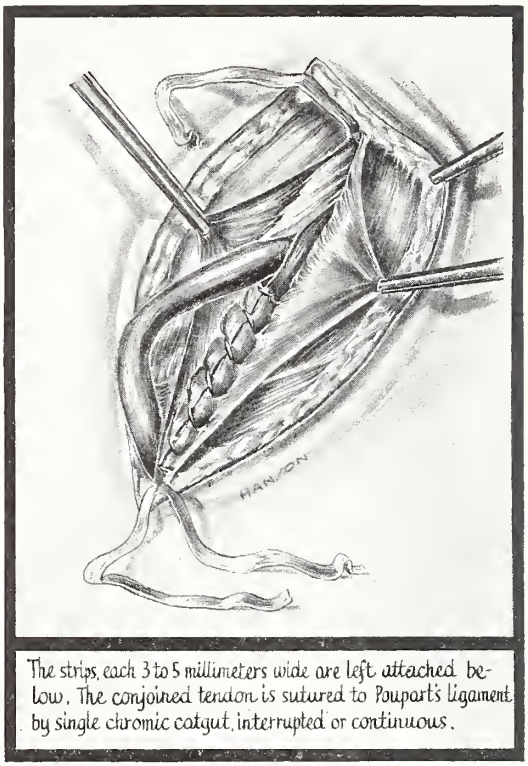
Dr. Austin, Dayton, is a graduate of Ohio State University College of Medicine, 1913; fellow American College of Surgeons; senior surgeon at Miami Valley and Good Samaritan Hospitals, and thoracic surgeon at Stillwater Tuberculosis Sanatorium, Dayton, Ohio.

Submitted September 16 1938.



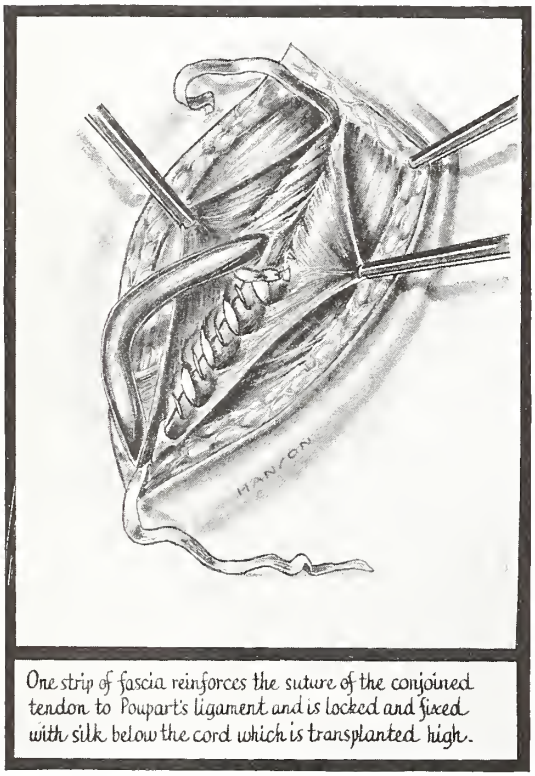
An incision is made in the external oblique aponeurosis. From the mesial and lateral margins, strips of fascia are obtained (dotted lines)

FIGURE 1



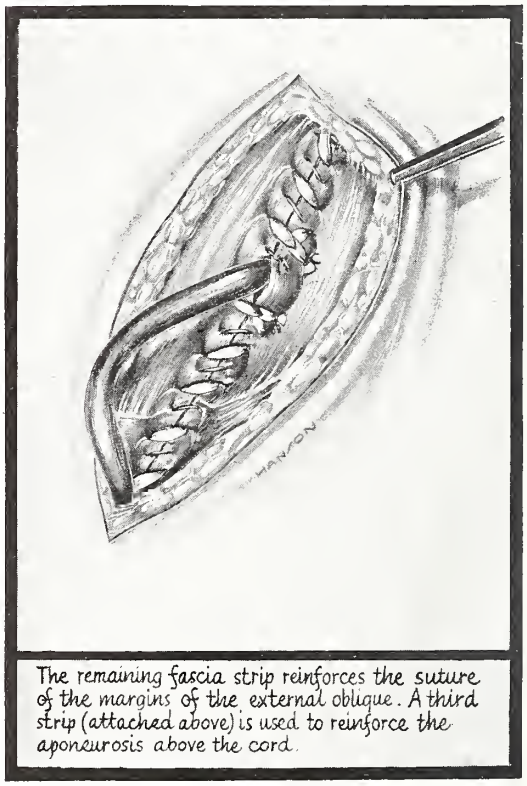
The strips, each 3 to 5 millimeters wide are left attached below. The conjoined tendon is sutured to Poupart's ligament by single chromic catgut, interrupted or continuous.

FIGURE 2



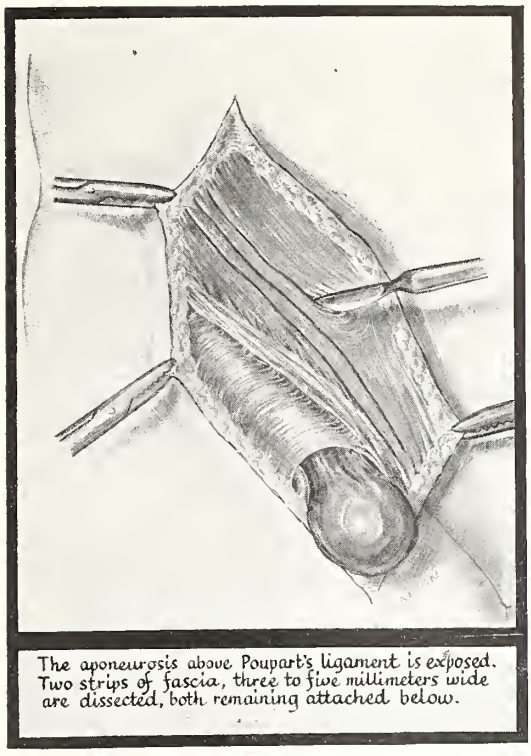
One strip of fascia reinforces the suture of the conjoined tendon to Poupart's ligament and is locked and fixed with silk below the cord which is transplanted high.

FIGURE 3



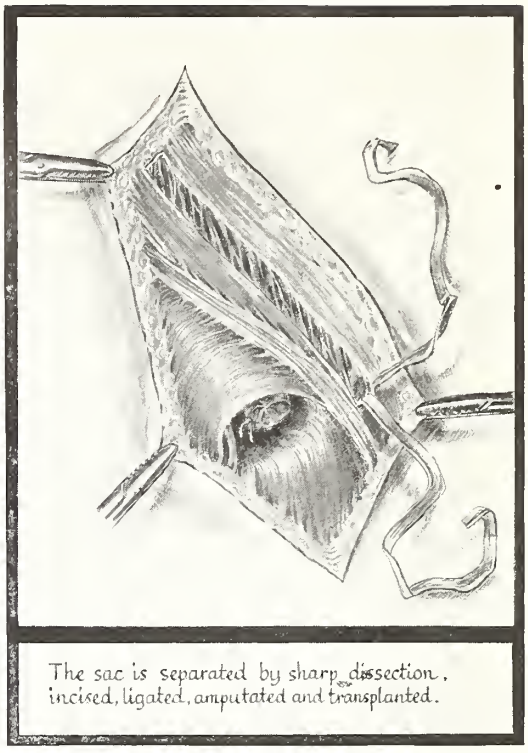
The remaining fascia strip reinforces the suture of the margins of the external oblique. A third strip (attached above) is used to reinforce the aponeurosis above the cord.

FIGURE 4



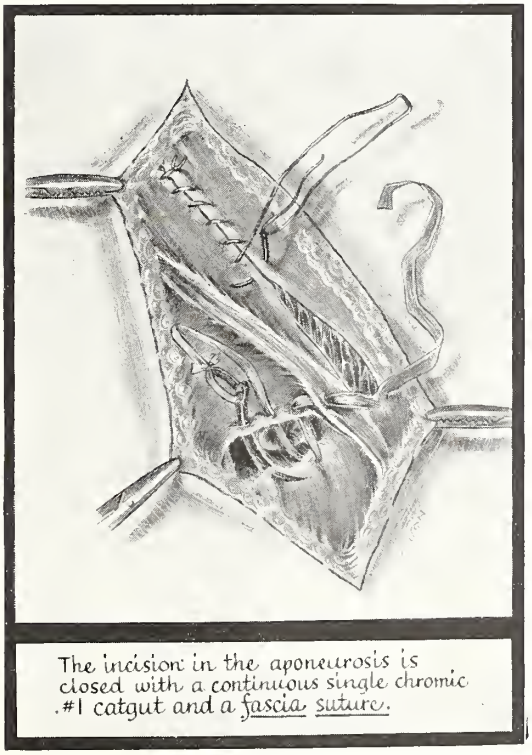
The aponeurosis above Poupart's ligament is exposed. Two strips of fascia, three to five millimeters wide are dissected, both remaining attached below.

FIGURE 5



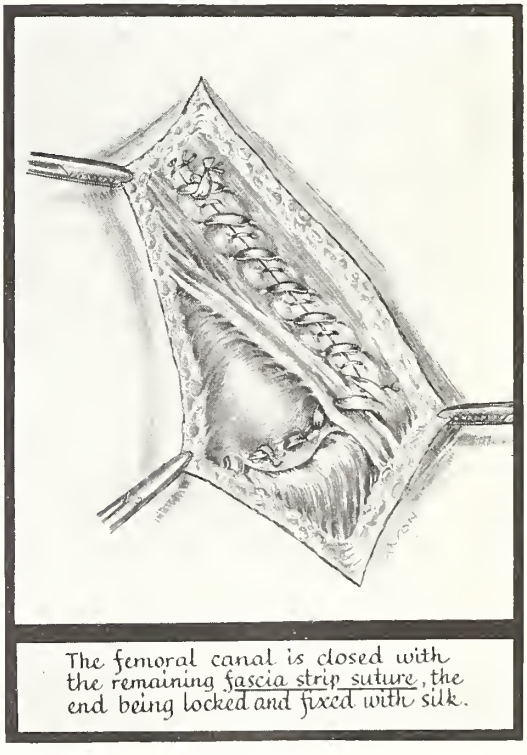
The sac is separated by sharp dissection, incised, ligated, amputated and transplanted.

FIGURE 6



The incision in the aponeurosis is closed with a continuous single chromic #1 catgut and a fascia suture.

FIGURE 7



The femoral canal is closed with the remaining fascia strip suture, the end being locked and fixed with silk.

FIGURE 8

few years ago to give up bilateral herniotomies because of the high percentage of recurrences, we feel secure in employing the above technique in doing a bilateral repair.

I might say that the employment of this technique does not obviate the necessity of utilizing the other well established principles in the treatment of hernia, i.e., the inversion of the sac, high transplantation of the cord, and careful repair of the muscular defect, and as we have employed this method in the treatment of indirect hernia the high ligation and amputation of the sac must be emphasized.

FEMORAL HERNIA

In the surgical treatment of femoral hernia the location of the femoral canal and the easy access to strips of fascia above Poupart's ligament, permits the use of the "autologous fascia suture" technique.

Watson states that the percentage of recurrences compiled from the records of a number of surgeons, is about 5 per cent. While this percentage of recurrences is relatively small, it is this reducible percentage of recurrences, and the economic factor, that has prompted me to develop this procedure.

A combined femoral and inguinal incision is made. The hernial sac is treated in the usual manner. Two strips of fascia three to five millimeters wide are dissected from the aponeurosis above Poupart's ligament, each strip being left attached below (Illus. 5 & 6). After the closure of the aponeurotic defect is made with chromic catgut, one strip of fascia suture in a Mayo needle is employed to reinforce this aponeurotic suture line. The remaining suture is threaded into a Mayo or fascia needle, and the femoral canal is obliterated by suturing the inguinal ligament to the pectimate ligament, and locking the fascia suture securely (Illus. 7 & 8). Additional interrupted chromic catgut or silk sutures may be employed, but these are rarely necessary.

Because of the simplicity of the technique, and the secure obliteration of the femoral canal, we have found this technique highly satisfactory. It has a justification on the economic basis. We have routinely permitted these patients to get out of bed on the third day, and leave the hospital on the fourth and fifth day, returning to work at an early date.

We have employed these techniques in indirect, direct and femoral herniae for a period of five years, and the results have been highly satisfactory. Ninety-five per cent of a group of 270 cases have been followed. We have seen one recurrence in the direct group and two recurrences in the indirect group. We can confidently say that the incidence of infection is not increased in the use of fascia.

SUMMARY

Autogenous fascia sutures, I believe, are superior to any foreign material suture that may be employed.

"Autologous fascia sutures" may be secured easily, are adequate, and obviate the necessity of an added operative procedure in securing fascia lata sutures.

The high percentage of recurrences in direct hernia, justify a perseverance in improving previous established techniques.

The establishment of an unyielding lower segment wall is the important factor in the prevention of recurrence of direct hernia.

The facility and security with which the femoral canal may be closed by the use of "autologous fascia sutures," highly commend its use.

920 FIDELITY BUILDING.

The Adolescent Heart

A proper appreciation of the numerous slight variations in the cardiovascular system that can occur during the period of normal growth is desirable in order to understand the adolescent heart under incidental stresses. A school boy is noticed to be out of sorts, pale, listless and without his normal appetite. Examination reveals a pulse rate in excess of normal, an apex beat in the nipple line or slightly outside, a faint systolic murmur in the apex. There may also perhaps be a discomfort over the heart on exertion and some unusual breathlessness. All these symptoms and signs may be without serious significance in a boy who has overexerted himself following an attack of fever even as trivial as tonsillitis. The parents may be unduly alarmed and this again may be reflected in the mentality of the patient especially if he is of the sensitive type. The doctor in charge of the case must be sure that the boy has or has not got some cardiac disease and say so. The boy with rheumatic cardiac disease must be put to bed, the boy with an anxiety neurosis must be assured and encouraged to take exercise, the boy who has got about too soon after a bout of fever must be watched till the heart is normal either in bed or with restricted exercise. Here it may be said that slight clinical evidence of dilatation in a displaced apex beat and an increase in cardiac dullness to the left is not uncommon. A period of rest in bed usually restores the heart to normal if there is no rheumatic disease. In the more difficult cases and in those in whom all confirmatory evidence is desirable, an electrocardiogram should be obtained and an anteroposterior x-ray. When all signs are normal both patient and parents must again be reassured.—A. G. Gibson, F.R.C.P., Oxford, End.; Med. Record, Vol. 148, No. 7, Oct. 5, 1938.

Clinical Aspects of Peripheral Vascular Disease

HOWARD C. EDDY, M.D.

THE peripheral vascular diseases constitute a heterogeneous group from which certain clinical entities stand forth quite clearly. However, the individual clinical case frequently presents so many of the features common to the group as to very nearly defy classification.

The term peripheral vascular disease refers to those diseases of the extremities which affect primarily either arteries, arterioles, or capillaries. The purpose of this paper is to discuss briefly the lesions of the peripheral vascular system which arise in association with some of the common organic diseases.

Before beginning a discussion of definite clinical entities, it is well to consider the normal and pathological physiology of certain of the peripheral vascular phenomena observed in the extremities. The normal functions of the peripheral vascular system may be classified under three headings. A circulatory function which provides for the metabolic needs and insures the proper nutrition of the tissues, a reparative function which provides for the mobilization of the forces of inflammation against the various types of injury whether traumatic or bacterial, and finally a thermostatic function which provides first, for the maintenance of the temperature of the extremity within safe limits, and secondly for the maintenance of the general body temperature at its normal level. In this connection it is interesting to note that the surface area of the limbs amounts to two-thirds of the total body surface area.

In considering the pathological physiology of the extremities we are noting aberrations of these normal functions. Sir Thomas Lewis has called attention to an interesting correlation between the temperature and tint of the skin and the fundamental state of the peripheral circulation. These symptoms have been summarized in Table I.

The temperature of the diseased extremity should be carefully noted. There is in most normal individuals a normal vasomotor tone which results in the surface temperature of the foot being from three to five degrees lower than that of other parts of the body. In the pathological extremity vasomotor tone is frequently increased or even normal vasotonic responses to external stimuli may result in sufficiently impairing circulation to produce clinical symptoms. As certain surgical procedures are intended to release vasomotor tone, it becomes a matter of practical importance to develop methods for determining the extent to which the existing circulatory state of the extremity is the result of vasomotor tone and the extent of improvement in circulation which may be expected when the vasomotor tone is released. There are a number of methods of releasing vasomotor tone. A general anesthetic, spinal anesthetic or local nerve block will abolish vasomotor tone. Typhoid injections produce (shock) in the sympathetic nervous system and vasomotor relaxation. Immersing the upper extremities in hot water produces reflex vasodilatation in the lower extremities.

From the rise in temperature in the affected part obtained by these various methods numerous mathematical indices have been proposed in an attempt to give a purely objective rating to circulatory efficiency. The vasomotor index proposed by Adson is typical. The patient is given an intravenous injection of typhoid organisms and the rise in temperature of the extremities and

The Author

Dr. Eddy, Cleveland, is a graduate of Western Reserve University School of Medicine, 1929; diplomate National Board; assistant surgeon, outpatient department, Lakeside Hospital; demonstrator in surgery, Western Reserve University.

TABLE I.

Temperature—Tint and Circulation of the Extremities

Skin Temperature	Skin Tint	Peripheral Circulation
Warm	Pale	Adequate blood flow Blood fully oxygenated High small vessel tone
Warm	Deeply colored red	Irritation or inflammation
Warm	Deeply colored cyanosed	Deficient blood supply (if blood pigments are normal). Warmth acquired by external heating
Cold	Pale cyanosed	Blood flow is very slow or absent
Cold	Deeply cyanosed	Circulation very slow over a long period or low grade inflammation
Cold (below 50°F.)	Deeply colored red	Vessels dilated by anoxemia Filled with bright red blood (Oxyhemoglobin fails to dissociate freely at low temperatures and comparatively little oxygen is available to the tissues)

(adapted from Vascular Disorders of the Limbs —Sir Thomas Lewis)

Submitted September 20, 1938.

the mouth temperature noted. The difference between the rise in the temperature of the extremities and the rise in mouth temperature divided by the rise in mouth temperature gives the vasomotor index or:

$$\frac{T_e - T_m}{T_m} = I$$

(I) must be greater than 1.5 or operation is inadvisable. In this connection however, it must be noted that skin temperature is not the sole criterion of vascular efficiency. Skin circulation may be relatively more adequate than that of the underlying tissues.

Intermittent claudication was first described by Bouley, a veterinarian, as a condition occurring in horses. It was soon recognized in human beings as an intermittent pain in the leg occurring rapidly on walking and disappearing on rest in the standing position. It occurs in patients suffering from arteriosclerosis, diabetes, thromboangiitis obliterans, aneurism, arteriovenous fistula, old embolism or thrombosis of a main artery, or coarctation of the aorta. It is believed that the pain producing substance is identical with lactic acid. All of the above pathological conditions lead to muscle metabolism under conditions of anoxemia. This produces an excess of lactic acid which can not be buffered by the muscle proteins. (Anoxemia prevents reconversion of excess lactic acid to muscle glycogen.) A convenient clinical test for eliciting this phenomena is Samuel's test for plantar ischemia. The patient's legs are elevated at an angle of 45°, the ankles rapidly flexed and extended. In the affected leg the plantar surface becomes pale and the patient complains of severe cramping pain.

A second type of pain quite common in patients with peripheral vascular disease is rest pain. This pain is continuous, severe—characteristically more severe at night. The pain may be limited to the feet or may involve entire extremities. It may absolutely prevent the patient from obtaining rest. It is a peculiar diffuse tissue pain of complex origin and distribution which is not relieved by peripheral nerve section or sympathectomy. It is relieved by chordotomy of the spinothalamic tracts or by the injection of deinsulinized pancreatic extract.

Infection and gangrene frequently occur as complications in cases of peripheral vascular disease. Vascular spasm or occlusion result in a loss of local temperature control and injury to the tissues from local effects of heat or cold. Anoxemia lowers and alters the local tissue metabolism. There is a decreasing local resistance due to the deficient blood flow and resultant lack of antibodies. The hyperglycemia of diabetics provides an enriched culture media for bacteria. Vitamin B deficiency results in trophic changes in the skin and breaks down this barrier to infection. Gas gangrene infection is quite prone to occur in these patients due to the relative anoxemia and frequency of secondary infections which serve to increase the pre-existing anoxemia of circulatory origin.

Peripheral vascular diseases may be classified as functional i.e., vasomotor, or organic. Typical of the vasoconstrictor type is Reynaud's disease or Reynaud's syndrome, which may occur with or without scleroderma. The Reynaud's phenomena occurring from the use of vibrating tools, arterial spasm with impact described by Kroh, and ergot poisoning are related phenomena. Vasodilator phenomena are present in erythromelalgia or Weir Mitchell's disease. Erythrocyanosis (Bazin's disease) and acrocyanosis are related phenomena (cold wet hands of young women).

The most common organic peripheral vascular disease is arteriosclerosis obliterans. This occurs in two forms, the senile and the diabetic. It is predominantly the arterial disease of the elderly arteriosclerotic or diabetic patient. The lesions are located in the intima of the arteries and consist of elastic or connective tissue proliferation with or without atheromatous change combined with the formation and organization of thrombi. There may or may not be associated calcium deposition in the intima. Hence in many of these cases X-ray examination is negative for peripheral calcification of vessels. There is a gradual narrowing of the vessels which ultimately develops a chronic state of relative ischemia in the extremities. The disease in both its diabetic and non-diabetic forms is more common in elderly males. Possible etiological factors are the greater prevalence of exposure, violent exercise and the use of tobacco. The early symptoms are a sense of cold, numbness, heaviness, and weakness in the lower extremities. The feet are cold at night and there is frequent complaint of burning and tingling. It is at this stage that many of these cases might be recognized in private practice and by appropriate treatment saved from much of the later suffering incident to the progression of their disease. The later symptoms in this group are intermittent claudication, rest pain, ulceration, and gangrene.

Next in importance is thrombo-angiitis obliterans or Buerger's disease. This is a disease affecting young Jewish males aged 25 to 45, occurring almost exclusively in heavy smokers, frequently associated with focal infection but not linked with syphilis or typhus. The disease is frequently preceded by ideopathic recurrent superficial phlebitis. From a pathological standpoint thrombo-angiitis obliterans usually affects the larger vessels of the extremities, the lower extremities more often than the upper, and arteries more often than veins. The stages in the development of a lesion are an intimal

proliferation leading to thickening of the wall of the vessel followed by the formation of a soft red thrombus and occlusion of the vessel. The occluding mass becomes converted into a firm yellowish white tissue through which course minute blood channels. The adventitia and perivascular tissue become markedly indurated and in the end stages the artery, vein and nerve may be bound firmly together in a mass of scar tissue. An acute inflammatory process may be superimposed upon these chronic changes with lymphocytic infiltration and giant cell formation. The nerves are apparently involved by virtue of their relationship to the vessels and by reason of ischemia in the distal portions of the extremities. (Mahorner).

The symptoms of this disease are not the result of the disease itself but of the chronic after-effects of the healing process. Intermittent claudication associated with pallor of the extremity on elevation and rubor on dependency is usually prominent. Rest pain which is entirely distinct from the pain of claudication precedes the appearance of ulcer, fissures, and frank gangrene with continuous pain. The time required to reach this stage varies from one to ten years averaging five years. The disease is self-limiting and may be compensated spontaneously or vascular compensation may be attained as the result of treatment.

Luetic arteritis presents no distinctive clinical features. It is a condition to be kept in mind in differential diagnosis but it should be pointed out that a positive Wassermann does not make the diagnosis.

Embolism and thrombosis of main arteries is a less frequent factor in peripheral vascular disease. Thrombi may occur in typhoid, pneumonia, cholera, malaria, marasmic states and after operation. Embolism of a systemic artery may result from the detachment of clots from the left auricular appendix or from the wall of the left ventricle. It occurs most commonly in mitral stenosis, auricular fibrillation, and failure with congestion, alone or in combination. It also occurs in bacterial endocarditis and aortic aneurism. The symptoms are variable. There is usually pain, cold, pallor or cyanosis, and weakness. Claudication may not be prominent in sedentary patients or in those with a distal arterial obliteration.

The diagnosis of the individual patient requires the accumulation of certain basic data. There is the usual routine complete history and physical examination to include determination of blood pressure and the opthalmoscopic examination of the fundi. In addition, the special points in the history to be emphasized are the age and race of the patient, his subjective symptoms, coldness, weakness, etc., his exercise tolerance, previous history of spontaneous thrombophlebitis, the time of appearance of intermittent claudication, presence of rest pain, ulcers, gangrene, previous amputations, and the use of tobacco. Of special interest in the physical examination are the palpation of the peripheral pulses, the estimation of skin temperature, the color changes of the extremities and certain special tests such as Samuel's plantar ischemia test and the various determinations of the effect of abolishing vasomotor tone. Laboratory tests of diagnostic import are examination of the urine for sugar, the blood sugar and sugar tolerance tests, the blood Wassermann, X-ray of the feet for peripheral calcification, electrocardiogram to determine the state of the coronaries.

The treatment to be accorded these patients is first of all the general medical therapy of their arteriosclerosis, diabetes, lues, or other associated medical conditions and a general hygenic regime. The diet should be adequate in vitamins especially vitamin B. It is my opinion that all patients afflicted with peripheral vascular disease should practice **total abstinence of tobacco in any form.** The concensus of opinion is that Buerger's disease presents a history of excessive use of tobacco as an almost constant etiological factor and that it is virtually impossible to accomplish anything by treatment if the patient is unwilling to leave tobacco strictly alone. When we reflect that a single cigarette sets up vascular reflexes in the normal individual which result in lowering the temperature of the normal extremity several degrees for the period of a quarter of an hour or more, it is easy to understand why the use of tobacco exercises such a baleful influence on these cases.

Most physicians would hesitate to take the responsibility for a patient with peripheral vascular disease who insisted on going wading in the creek only once or twice after each meal. As regards the special hygiene of the foot it is essential that patients be taught to keep their feet clean, warm and dry. The physician must remember that the use of cradles or other baking devices increases local metabolism and frequently causes burns. He must teach his patient the avoidance of minor traumata and prompt attention to minor infections, and for his own part he must avoid meddlesome minor surgery. Buerger's disease of the great toe is often mistaken for ingrown toenail. The patient may take Sitz baths to produce vasodilatation, spending 10 minutes in comfortably hot water to the hips once or twice a day. Buerger's exercises are easily taken by the patient at home. These exercises consist in the elevation of the legs at an angle of 45 degrees for two minutes followed by a period of dependency until rubor is established followed by two minutes of rest with the legs in the horizontal position. These exercises are repeated four or five times twice a day.

The Pavex machine is an apparatus for the

alternate suffusion and emptying of the limb by means of alternate negative and positive pressure. It is indicated particularly in the treatment of arteriosclerosis obliterans and emboli in peripheral vessels. The principal contra-indication is the same as that for massage, i.e., infection. It possesses the disadvantage that the machine is quite expensive and is not likely to be available away from large medical centers. A course of treatment in the arteriosclerotic case usually consists of about 40 treatments given over eight weeks at the rate of five hours' therapy a week.

The use of intravenous hypertonic saline seems particularly indicated in the treatment of Buerger's disease. Patients are given a preliminary injection of 150 cc. of 5 per cent saline. After this they are given an injection of 300 cc. of 5 per cent saline intravenously three times a week to a total of 30 to 40 injections. Many of these Buerger's patients obtain very great relief from this therapy. It is contra-indicated in the presence of severe cardiac impairment. Intravenous typhoid injections are used particularly for the treatment of rest pain. Fifty million organisms may be injected intravenously every second day for six or eight doses. This seems a radical treatment for many of these patients as the majority have their symptoms controlled by the intravenous saline injections.

The role of surgery in peripheral vascular disease is a twofold one. There is first a group of surgical procedures directed at the sympathetic nervous system. These include the perivascular sympathectomy of Leriche, a procedure now outmoded due to the tendency of sympathetic pathways to regenerate with recurrence of symptoms after a period of a few weeks. A second operation, arteriectomy, also advocated by Leriche consists of removing several inches of the diseased artery on the theory that the scarred and inflamed vessel gives rise to pathological reflexes in its associated nervous pathways. A considerable success is reported for this operation, but insufficient data is in hand for its final evaluation. The operation of lumbar sympathectomy is successful in removing the vasomotor elements of peripheral vascular disease in any given case. Adson and Brown of the Mayo Clinic have developed the vasomotor index previously mentioned as a purely objective index of the amount of improvement to be expected from this type of operative procedure. In selected cases this type of surgery seems highly successful, but it is a radical procedure for the relief which can be offered at the stage at which the average case presents itself.

The final phase in the surgery of these conditions is amputation. Certain considerations should be kept in mind by all who must deal with these patients. Arteriosclerotic changes are in general fairly symmetrical involving both extremities and to greater or lesser degree all parts of the same extremity. In these cases therefore, if more extensive amputation than that of single toes is required it is customary to do a midthigh amputation. In thrombo-angiitis obliterans however, the blood vessel damage while extremely acute is more apt to be sharply localized and while in these cases as well an amputation of more than a single toe may call for a Stokes-Gritti or midthigh amputation, certain of these cases may be more individualized than in the arteriosclerotic individual, and an amputation at a lower level may suffice. In cases requiring embolectomy, the operation is done under local anesthetic and must be done within 12 to 24 hours if satisfactory results are to be obtained with this procedure.

CONCLUSION

1. There are a large number of individuals in every community suffering to a greater or less degree from the effects of peripheral vascular disease.

2. The practical aspects of the diagnosis and treatment of the great majority of these cases requires nothing in the way of armamentarium which is not available to the average physician or surgeon.

3. The relief from symptoms even where these do not dominate the total clinical picture is very worthwhile to the patient.

4. If progression of the disease is halted or complications prevented the patient may be saved from becoming a human derelict.

10103 WILBUR AVENUE.

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Because of loss of weight, vomiting, and a palpable mass in the kidney region, a diagnosis of carcinoma of the kidney was made. Urological examination was negative. Later, after a difficult defection, a strip of gauze protruded from the rectum. This was removed, and found to be fifty-two inches long and eighteen inches wide. It had been overlooked at a gall-bladder operation six months previously. The patient recovered.—E. O. Swartz, Cincinnati.

Nutritional Anemias of Infancy and Early Childhood

CARL V. MOORE, M.D.

THE term nutritional anemia has been used for the past several decades to denote an anemia of infancy and early childhood caused primarily by a deficiency of iron. However, with the recent very active experimental interest in nutritional problems has come the demonstration that many dietary deficiencies other than of iron may be responsible for the development of anemic syndromes. And since the changes produced in the red blood cells by these several dietary deficits frequently differ in character, it now becomes necessary to speak of a group of nutritional anemias, rather than of one, and to relate each red blood cell picture to its specific etiology.

The Author

● Dr. Moore, St. Louis, is a graduate of Washington University School of Medicine, St. Louis, 1932; member Central Society for Clinical Research; American Society of Experimental Pathology; Ohio Academy of Science; formerly physician to Starling Loving and St. Francis Hospitals, Columbus, and assistant professor of medicine, Ohio State University College of Medicine; assistant professor of medicine, Washington University School of Medicine, St. Louis.

I. NUTRITIONAL SUBSTANCES NECESSARY FOR NORMAL ERYTHROPOIESIS

Those nutritional substances, deficiencies of which result in an anemia, may roughly be divided into two groups: (1) factors which are used as component parts of the erythrocyte; and (2) factors whose function it apparently is to stimulate normal erythropoiesis (Chart 1). The erythrocyte, from a hematologic point of view, is composed primarily of cell stroma and of hemoglobin. Recent work has shown that lecithin, cholesterol, and a paraglobulin play an important röle in the formation of the erythrocyte stroma, but as yet no anemia has been produced by, or recognized as being caused by, deficiencies of these materials. Hemoglobin may be divided into globin, the protein portion of the molecule, and heme, the pigment portion. Heme, in turn may be split into iron and protoporphyrin. Deficiencies of any of these three substances or, in the case of globin and protoporphyrin, of the dietary essentials from which they are synthesized may result in an anemia characterized chiefly by an inadequate manufacture of hemoglobin. Whipple and Robscheit—Robbins, for instance, have recently presented evidence to show that the amino acid histidine may be of importance in the fabrication of the globin molecule[1].

Of equal interest and importance are those substances which seem to be necessary for the normal stimulation of the erythropoietic process. There is much evidence to show that the erythroid series of blood cells takes its origin from the endothelial cells in the intersinusoidal capillaries of the bone marrow[2]. When that substance which ordinarily stimulates the differentiation of the earlier member of the erythrocyte series (the megaloblast) from the endothelium is lacking, the picture of hypoplastic or aplastic anemia results. Recent evidence indicates that vitamin B_6 may be that stimulatory factor or closely related to it. At least, animals placed on a vitamin B_6 deficient diet have been shown to develop an anemia of the hypoplastic type[3, 4]. It has been demonstrated[5, 7, 8] that the maturation of the megaloblast to the normoblast is dependent upon the presence of the antipernicious anemia factor normally present in liver. This substance has aptly been termed the "erythrocyte maturation factor" and is formed, as Castle and his coworkers[6] have demonstrated, by the interaction of an intrinsic factor (an organic, enzyme-like substance secreted by the normal gastric mucosa, but present only in small and inadequate amounts in the stomach contents of patients with Addisonian pernicious anemia) and an extrinsic factor. The latter is an essential dietary component closely related to the vitamin B_2 complex but apparently not identical with it. Since an interaction of both intrinsic and extrinsic factors is necessary in order that the erythrocyte maturation factor be synthesized, it follows that an inadequacy of either substance may cause a deficiency of the maturation factor and be responsible for the production of an arrested red blood cell development. The dietary lack of extrinsic factor may, therefore, result in the production of a macrocytic, hyperchromic or pernicious anemia-like red cell dyscrasia. The final step in the process of red blood cell maturation—the change from the normoblast to the mature erythrocyte—is apparently dependent on the presence of iron and of vitamin C[9, 10]. Copper seemingly acts as a catalyst to permit the utilization of iron for the synthesis of hemoglobin[11]. Cobalt may likewise exert a catalytic effect on some phase of the hematocytogenic process[12], but its influence under

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From the Department of Medicine, Division of Research Medicine, Ohio State University.

normal conditions is still in question. While other substances, hormonal, environmental, etc., have an undisputed influence on the formation and development of the red blood cell, the importance of the nutritional factors in the process is obvious; and since their individual functions are varied, the anemias produced by nutritional deficiencies are specific and distinct.

II. MORPHOLOGICAL CHARACTERISTICS OF THE NUTRITIONAL ANEMIAS

From the foregoing discussion, it is evident that deficiencies of a wide variety of nutritional substances may be accompanied by anemic syndromes. Practically, however, the nutritional anemias seen in infancy and early childhood are only three: that of iron deficiency, of hypovitaminosis C, and of erythrocyte maturation factor deficiency. The relationship of the relatively rare "idiopathic" hypoplastic anemia to defective nutrition is still too questionable to merit consideration here. The anemia of iron deficiency is by far the most common of the three and is characterized by a lowering of the hemoglobin content of the red cells out of all proportion to the actual decrease in the number of erythrocytes (Chart 2). The individual red cell, consequently, tends to be hypochromic and smaller than normal. Since vitamin C serves to stimulate the maturation of the normoblast to the erythrocyte and plays no known part in the actual composition of the components of the erythrocyte, the anemia of scurvy, when uncomplicated by hemorrhage, is characterized by a parallel lowering of the hemoglobin and total cell count. Individual cells are normal in size and in hemoglobin content. If the bleeding in any individual case of scurvy is sufficient, however, to cause a partial depletion of iron, then a variable amount of hypochromia may result. With an extrinsic factor deficiency, there is a megaloblastic arrest of erythropoiesis in the bone marrow, just as there is in Addisonian pernicious anemia, and the red cells are macrocytic, show considerable variation in size and shape, and are well filled with hemoglobin. The anemia of copper deficiency, if it actually ever occurs in its pure form in man, would have the same characteristics as an iron deficiency anemia because, in the absence of copper, iron is not utilized for the synthesis of hemoglobin.

ESSENTIAL NUTRITIONAL FACTORS IN NORMAL ERYTHROPOIESIS

I. Necessary as component parts of the erythrocyte.
- A. Stroma of the red cell
  - Lecithin, cholesterol, paraglobulin, nucleoprotein, etc.
- B. Hemoglobin
  - Hemoglobin
    - Heme
      - Iron
      - Protoporphyrin (pyrrol nucleus)
    - Globin (proteins, essential amino acids, etc.)

II. Substances which stimulate normal erythropoiesis.
- A. Endothelium
  - Vitamin B_6 (?) (Hypoplastic Anemia)
  - Megaloblast —Intrinsic + Extrinsic Factors=E.M.F. (liver)→ Normoblast (Macrocytic Hyperchromic Anemia)
  - Normoblast —Iron, Vitamin C→ Erythrocyte.
    - Hypochromic, microcytic.
    - Normochromic, normocytic.
- B. Globin + porphyrin + Fe —Cu (catalyst)→ Hemoglobin

III. MECHANISM OF PRODUCTION OF THE DEFICIENCY STATES

In any consideration of nutritional deficiency states, it is necessary to emphasize the fact that nutritional deficiencies are not necessarily produced by dietary inadequacies[13, 14]. For instance, with gastric secretory defects such as hypochlorhydria or achlorhydria there may be inadequate utilization of certain food stuffs, notably food iron[15]. Likewise, in the presence of a persistent diarrhea from whatever cause, intestinal absorption is diminished. This is the case also when specific intestinal pathology as that present

in coeliac disease interferes with absorption. Many of the cases of hyperchromic, macrocytic anemia seen in children result from a failure of the erythrocyte maturation factor to be absorbed by the intestinal mucosa[16, 17]. These observations tend to emphasize the fact that in the clinical management of any specific nutritional deficiency, in addition to replacement therapy, attention must be directed toward correction of those factors which tend to interfere with the processes of digestion, absorption and utilization.

Another consideration which this broader view of the mechanism of the production of nutritional deficiencies calls to attention is this: when the deficiency is not due to a specific dietary lack, it is apt to be multiple in nature. For instance, any specific intestinal pathology which interferes with the absorption of the erythrocyte maturation factor, is likely also to interfere with the absorption of iron, etc. It has been noted frequently, that children who have an iron deficiency anemia often suffer concurrently from the clinical manifestations of rickets,—and for a while some inter-relationship between the two diseases was suspected. The explanation for the frequent association is adequately provided, however, by the observation that it is the exception, rather than the rule, for single nutritional deficiencies to occur. The clinical or hematological picture presented at any one time merely directs attention to that deficiency which is then the most advanced.

COMMON ANEMIAS OF NUTRITIONAL DEFICIENCY

Nature of Deficiency	Morphologic Characteristics Of The Anemia Produced	
	Size of Red Cell	Hemoglobin Content
Iron Deficiency	Microcytic	Hypochromic
Hypovitaminosis C	Normocytic *	Normochromic *
E.M.F. or Extrinsic Factor	Macrocytic	Hyperchromic

*When hypovitaminosis C is complicated by hemorrhage, the red cells tend to be hypochromic and microcytic in type.

IV. THE MANAGEMENT OF THE NUTRITIONAL ANEMIAS

a) **Macrocytic Hyperchromic Anemias.**—The macrocytic hyperchromic (pernicious anemia-like) anemias are rare in infancy and early childhood. There is some doubt as to whether the classical form of Addisonian pernicious anemia due primarily to a gastric intrinsic factor deficiency ever occurs. Evidence exists, however, to indicate that some cases of goat's milk anemia are caused by a deficiency of extrinsic factor[17], and for that reason have morphologic characteristics similar to those of pernicious anemia. Similarly, rare cases of Bothriocephalus anemia have been observed during the first decade of life[18]. The mechanism of production in this latter instance is probably related either to destruction of the erythrocyte maturation factor by the worm or to inadequate absorption from the intestinal tract. Occasional cases of coeliac disease, particularly those of long standing, are associated with an anemia of the type under discussion[19]. Most of these result from abnormalities of intestinal absorption, but occasional instances of inadequate intrinsic factor production have been cited[20].

The management of the macrocytic hyperchromic anemias per se is usually not difficult. If the deficiency is primarily a dietary lack of extrinsic factor, autolyzed brewer's yeast or animal protein given orally correct the deficiency. Whole liver and liver extract serve as excellent sources of the erythrocyte maturation factor, and a host of satisfactory preparations is available for parenteral, as well as for oral, administration. Parenteral injection should always be resorted to whenever there is interference with absorption. The main therapeutic problems involved in these instances are those centering about the correction of those factors responsible for the altered absorption or utilization.

b) **Anemia of Hypovitaminosis C.**—Anemia of a normocytic, normochromic type is frequently, although not invariably, present in scurvy. It is usually rather mild in character, but an occasional case has been reported in which the erythrocyte level was reduced to two million cells and the hemoglobin to 30 per cent. The hematologic picture is often complicated by the fact that an iron deficiency resulting either from hemorrhage or from the same disturbance of metabolism which caused the hypovitaminosis C

exists concurrently. With an iron deficiency present, the red cells are altered morphologically so as to be smaller than normal and poorly filled with hemoglobin.

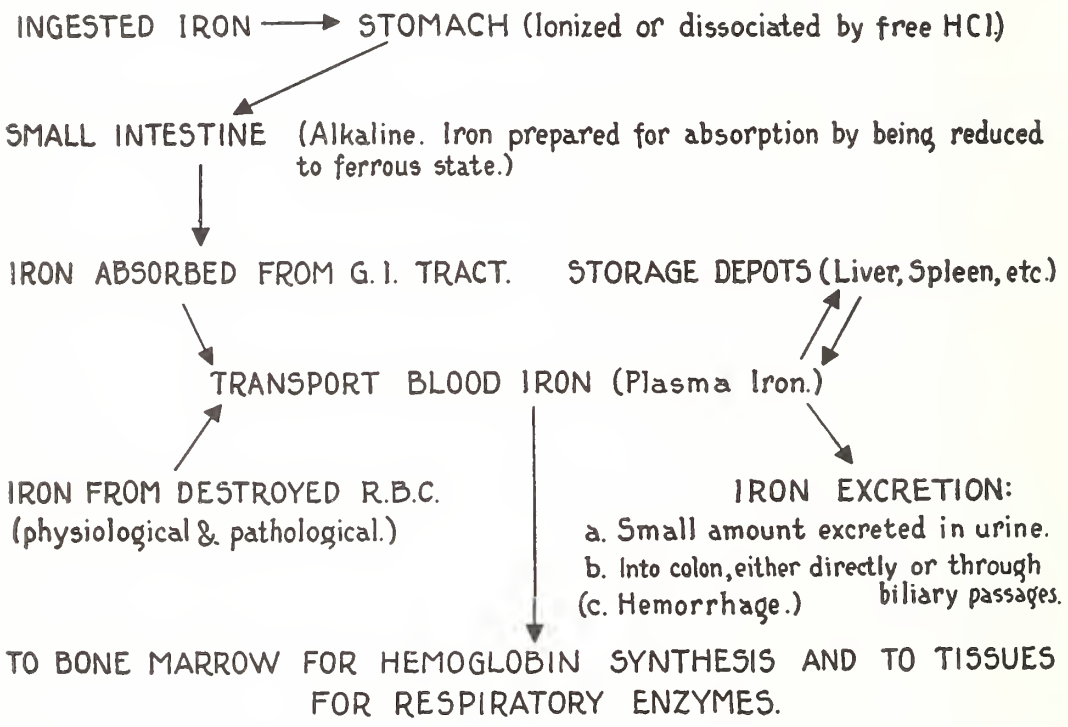
Since not all cases of scurvy are associated with an anemia, and since the severity of the scurvy often bears no direct relationship to the degree of the anemia nor to the time of its appearance, an understandable skepticism has arisen concerning the importance of vitamin C in the etiology of this blood picture[17]. Yet Mettier and Chew[10] were able to produce in guinea pigs, fed a vitamin C deficient diet, an anemia characterized by normocytic and only slightly hypochromic red cells. When orange juice was given a prompt reticulocytosis and relief of the anemia resulted. Similarly, it has been observed that the anemia of scurvy as it occurs in man responds specifically to the administration of the citrous fruit juices and not to iron or liver preparations[20]. Iron is of therapeutic value only when it, too, is deficient (cited in 21).

As has already been stated, vitamin C apparently has some function in that phase of the hematopoietic process in which the normoblast matures to the erythrocyte. It is to be expected, therefore, that deficiencies of this vitamin are accompanied by diminished bone marrow production of mature red cells.

Reference should be made to the observations of Weill and Mouriquand and of Rohmer and Bindschelder (cited by Parsons and Hawksley) to the effect that the anemia of vitamin C deficiency occasionally develops before any other clinical manifestations of scurvy are apparent.

c) **Hypochromic or Iron Deficiency Anemia.**—The clinical management of the iron deficiency anemias of infancy and early childhood presents a more complicated problem. For that reason, and because this type of anemia is by far the most common of those under consideration, the remaining portion of this discussion is to be devoted to an analysis of the therapeutic difficulties encountered.

Of primary and fundamental importance for the understanding of the iron deficiency anemias is a knowledge of the phases of iron metabolism



(Chart 3). Ingested food iron comes into contact in the stomach of the normal individual with a variable amount of free hydrochloric acid which splits off or dissociates the ionizable portion. From the stomach the iron passes into the small intestine, where the ionized fraction is reduced and changed to an alkaline state. This reduction is apparently necessary since the bulk of experimental evidence now available indicates that only ferrous iron is absorbed[22]. How much of the intestinal tract takes part in the absorbing process is unknown, but in all probability the greatest amount of absorption occurs in the upper portion of the small intestine. After absorption, the iron is transported by the blood plasma[23] to the organs of storage (largely liver and spleen), utilization (bone marrow for hemoglobin synthesis), and excretion (colon, liver, and to a small extent, the kidneys). In the case of iron meta-

COMPARISON OF SERUM IRON CURVES PRODUCED BY COMPARABLE AMOUNTS OF VARIOUS IRON SALTS IN A SUBJECT WITH NORMAL GASTRIC ACIDITY AND NORMAL HEMATOLOGICAL FINDINGS

0-3987 C.B. ♂, Aged 28 years, weight 73 kilo.

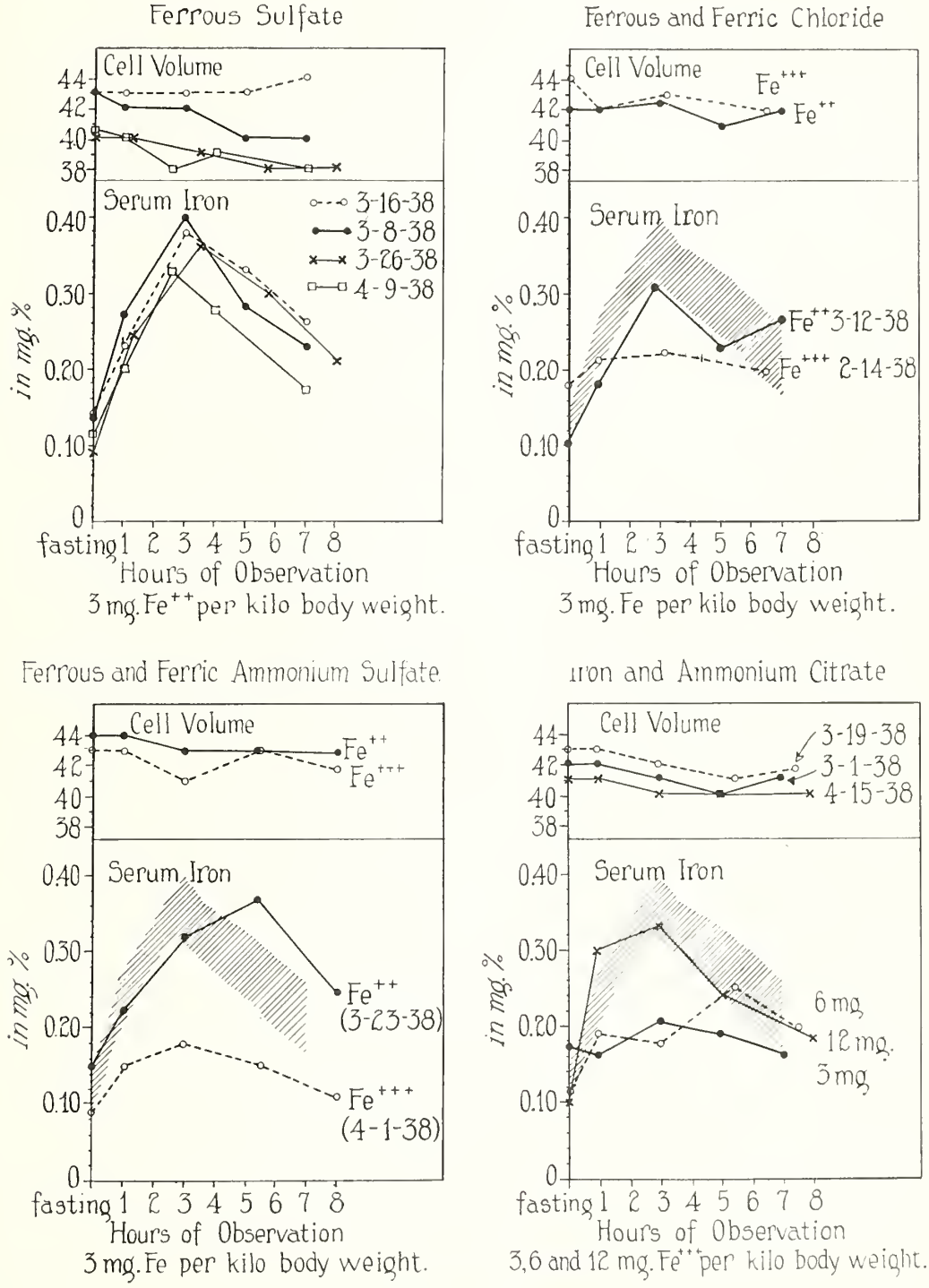


CHART 4

bolism, hemorrhage must be considered an abnormal type of excretion. Since disturbances of any phase of this metabolic process may result in a deficiency, it is important in the individual patient to recognize the nature of the altered metabolism in order that therapeutic approach to correction be on a rational basis.

The mechanism of iron storage is of especial interest to an understanding of anemias of infancy. The normal infant born at the end of a ten lunar month period of gestation has stored in his liver and spleen an amount of iron which is ordinarily enough to tide him over the five or six months of a milk (low in iron) diet. This reserve supply is further increased during the 24 or 48 hour period after birth when the usual post-natal hemolysis releases iron from the destroyed red cells. It has been shown (see 20) that approximately two-thirds of the iron stored during intrauterine life is deposited during the last trimester of pregnancy. This observation immediately suggests that infants born prematurely are denied at least a portion, and possibly the larger portion, of this reserve supply of the metal. It is practically always necessary to compensate for this lack by adding iron to the premature infant's formula sometime during the second or third months of life. Similar deficiencies of storage may occur in multiple pregnancies.

Strauss[24] has pointed out another practical application of this information concerning prenatal iron deposition. Anemic mothers are able to supply their fetuses with enough iron to manufacture a normal number of red blood cells and a normal amount of hemoglobin, but their body economy refuses to spare enough to supply adequate foetal storage depots in the liver and spleen. Infants born of these mothers with hypochromic anemias, consequently, are prone to develop iron deficiencies themselves during the first year of life. However, if the hypochromic anemia in the mother is recognized as late as the last trimester of pregnancy, and therapy begun immediately, the amount of iron deposited in the fetus increases to approximate the normal. In a series of cases studied by Strauss and Castle the hemoglobin level at the end of the first year in those infants born of anemic but treated mothers compared very favorably with that observed in the infants born of hematologically normal mothers.

The form in which iron is best administered has been a point of heated debate for years. It is now well established that only ionizable iron is available to the body organism, and since inorganic salts are, with but a few exceptions, more completely ionized than are organic compounds, it follows that inorganic salts are usually to be preferred. Likewise, since iron is apparently absorbed from the intestinal tract as ferrous iron, the ferrous salts should be more efficacious than are the ferric. Clinically, this has proved to be the case[25, 26]; satisfactory clinical responses are obtained with from one-third to one-fourth as much iron when ferrous instead of ferric salts are given. This difference in availability can best be demonstrated, perhaps, with the use of iron absorption or serum iron curves following comparable doses of various of the iron salts by mouth. When iron is administered orally, there is an increase in the serum or transport iron very much as there is an increase in blood sugar when a glucose tolerance curve is obtained[23, 27]. The increase begins within half an hour after the administration and reaches its peak at the end of two to four hours. There is then a subsequent slow fall to the normal or fasting level. The difference in the absorption of various iron salts is amply demonstrated in the studies reported in Chart 4.

The subject for these observations was a white male, 28 years old, with normal gastric acidity. His response to four administrations of ferrous sulfate on different days was determined. The maximum variations in the height of the serum iron responses at the various observation times is defined by the striated or cross hatched areas on the chart. With ferrous chloride and ferrous ammonium sulphate, the serum iron increases compared favorably with those for ferrous sulfate; but very much smaller responses were obtained following comparable doses (3 mg. Fe/kilo body weight) of ferric chloride and ferric ammonium sulfate.* When iron and ammonium citrate was used, the dose had to be increased to 12 mg. iron / kilo before the serum iron curve rose enough to fall within the limits defined by the striated area. There are several reasons for this lesser efficiency of the ferric salts. In the first place, the reduction to the bivalent state is probably never complete. In the second place, as soon as ferric iron comes into contact with an alkaline medium, there is formation of the insoluble ferric hydroxide, ferric phosphate, and related salts. That portion of the iron which is changed to an insoluble form is automatically removed from availability to the body economy.

These observations on the difference in the absorbability of the various iron salts are of tremendous practical significance. In the first place, iron, like all heavy metals, is a protein precipitant,—and, therefore, a protein irritant. The abdominal discomfort and occasional diarrhea which frequently follow the oral administration of iron in therapeutic doses is well known to the clinician. When the therapeutically effective dose of iron can be reduced by approximately one-fourth, the intestinal irritation is correspondingly

*The response described was the usual one obtained. It is only fair to emphasize the fact that an occasional patient showed as great a serum iron increase following the oral administration of simple ferric salts as was obtained with the ferrous forms.

diminished. There is sound clinical and experimental background, therefore, for the substitution of ferrous salts for the combined ferric compounds such as iron and ammonium citrate.

The affinity of ferric iron for phosphates gives rise to another interesting therapeutic problem. When insoluble ferric phosphate compounds are formed, phosphorous as well as iron is removed from availability for absorption and it is theoretically possible to disturb the calcium-phosphorous relationship enough to produce rickets. Several reports describing such a development in experimental animals have been published during the past few years[28,29]. This complication of iron therapy probably still belongs to the hypothetical, but it needs to be kept constantly in mind.

When intestinal irritation or a diarrhea is already present, the giving of a protein irritant like iron may seriously increase the severity of the clinical manifestations. Under these circumstances, and perhaps under no other, the parenteral administration of iron is justified. Iron gluconate, iron and ammonium citrate, colloidal ferric hydroxide, and other iron preparations are available on the drug market in form suitable for parenteral administration. However, all of these preparations frequently give severe reactions, they are in themselves irritating, and the actual iron content is so small that even if there is 100 per cent utilization of the injected metal the amounts necessary for adequate therapeusis are great in comparison with the tolerated dose.

Reference has been made to the fact that copper is a catalyst for the synthesis of hemoglobin and must be present in order to bring about the normal utilization of iron. While there are no proved cases of copper deficiency occurring in the human adult, there is a growing number reported in the pediatrics literature which indicate that not infrequently the hemoglobin response to iron therapy is sharper and more prompt when small amounts of copper are given as supplemental therapy[17, 30]. Mackay[31], however, found that copper as a supplement was of no benefit and that babies responded as well to iron alone as to iron and copper given together. Josephs[17] summarized his opinion with the statement that: "its (copper) action is best seen in those cases in which iron alone has failed to cause a complete return to normal. Copper is rarely necessary for complete recovery but may be useful in accelerating recovery." Exact objective appraisal of the state of copper metabolism is still not possible because sufficiently sensitive methods for determining copper metabolism in the human subject have not as yet been developed. It is perhaps safe to conclude that small amounts of copper do no harm and may make the response to iron therapy more dramatic.

The demonstration by Whipple, Robscheit-Robbins, and Walden[32] that the water soluble fraction of liver apparently contains an anti-anemic principle distinct from either iron or from the antipernicious anemia principle and active in the iron deficiency states has led to the incorporation of water soluble extract of liver in many of the iron preparations obtainable on the pharmaceutical market. The exact nature of this principle is at present disputed with the contention being made that its added potency is due solely to its contained copper[33]. The question centers about the possibility that hemoglobin precursors other than iron may be deficient in at least a portion of the hypochromic anemias, these precursors presumably being the raw materials from which globin or the pyrrol nucleus pigment portion of the molecule is constructed. The experiments of Whipple and his co-workers performed on their standard anemic dogs (anemia produced by systematic bleeding) would seem to indicate that these other nutritional factors out of which the hemoglobin molecule is built are provided by whole liver or its water soluble fraction. The following statement made by Castle and Minot in their recent monograph[34] would seem to offer a very seasoned, apt clinical judgment which should apply to the hypochromic anemias of infancy and early childhood as well as to those of the adult: "We have never observed a case of hypochromic anemia which would not respond to iron, but which would respond to whole liver or to some fraction of liver. In rare instances the use of iron has raised the hemoglobin in 'idiopathic' hypochromic anemia somewhat, but not to a normal level. The addition of whole liver or the fraction referred to above has then produced a further increase of hemoglobin. The use of well-balanced diets rich in animal protein, green vegetables and fruit will, however, usually supply the accessory material necessary for hemoglobin synthesis."

Since the presence of an infection has been shown to reduce materially the effectiveness of iron therapy on the reticulocytes and the hemoglobin level in hypochromic or iron deficiency anemias[17, 35], attempts must be made to eliminate any concomitant infections. Likewise, when the iron deficiency anemia is not due to a dietary deficiency per se, it is necessary to direct therapeutic attention not only to replacement, but to correction of the fundamental alteration in metabolism which was responsible for the production of the deficiency.

SUMMARY

The term nutritional anemia should no longer be used to denote the hypochromic anemia of infancy and early childhood. Our knowledge of the relationship of essential nutritional factors to red cell formation and hemoglobin synthesis has progressed to the point at which it is recognized that deficiencies of numerous nutritional substances may result in the production of an

anemia. Those specific anemias occurring during the first decade of life which have been recognized as being related to nutritional inadequacies are three: (1) macrocytic, hyperchromic or pernicious anemia-like; (2) the anemia of hypovitaminosis C; and (3) hypochromic or iron deficiency anemia. The first two of these are comparatively rare; the last is frequently encountered. The mechanism of production, morphologic characteristics, and problems of clinical management for each of these three types have been discussed.

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DISCUSSION

George M. Guest, M.D., Cincinnati, Ohio: Doctor Moore's review, though brief, has touched upon the most important phases of a subject which is attracting increasing attention from all who are interested in problems of growth and nutrition in infancy and childhood. The occurrence of anemia (i.e., other than the so-called primary blood dyscrasias) in infants should be regarded merely as a sign of disturbed nutrition, in the most general sense in which the word nutrition is used. Many of the known factors in the etiology of such anemia are peculiar to infancy and are not concerned in the anemias of adult life. The successful prevention of such anemia requires a better understanding than we now have of many conditions which may affect nutrition, and with nutrition, blood formation, in the growing infant.

What I have to add to Dr. Moore's presentation of this subject pertains particularly to the iron deficiency type of anemia. During the past six years or more, in the Children's Hospital of Cincinnati, we have been collecting data on blood samples from large groups of infants and children, building up a composite picture of the degree of variability in characteristics of the red cells and hemoglobin of the blood that may be found among infants of different ages and condition. In this study, microcytic hypochromic anemia has been found most frequently in the age period from 10 months to 2½ years, and the most severe cases found in the first half of the second year.

The relationship of maternal health, generally, and of the anemias of pregnancy, in particular, to the development of anemia in these infants deserves much more attention from both obstetricians and pediatricians than they have paid this subject in the past. In our hospital and clinic it is our teaching that in every case

where an infant is found to have nutritional anemia, it is not enough to treat the anemia in this child alone. If there are brothers and sisters, these should be examined for evidence of anemia, and if there is a sibling less than six months of age (most likely not yet anemic) this infant should be given iron as a prophylactic procedure. The mother of the anemic child should be warned that her next infant will probably develop the same sort of anemia—probably more severe—and to prevent this, administration of iron should be started early. Likewise, if or when another pregnancy occurs, it is wise to give such a mother iron during her pregnancy even though the hemoglobin in her blood is not thought to be unusually low.

Another phase of this problem is the effect of iron therapy in the anemic infant upon the ingestion, absorption and assimilation of other food substances. A complaint commonly heard from the mothers is that the anemic infants refuse all food except milk. In such infants, the administration of iron is followed almost invariably by an improvement in appetite and increased acceptance of a varied diet of solid foods. No one has satisfactorily explained this effect, but the improved appetite and ingestion of food must be recognized as an important part of the adjustments leading to recovery from the anemia. As a corollary to this, in our experience another fairly common observation among anemic infants has been the eating of dirt and chewing of paint —this leading to lead poisoning in some instances. It has been suggested that under such circumstances pica may be due to a craving for mineral substances, conditioned by the lack of iron in the body. We have a definite clinical impression —though not confirmed statistically—that pica is less frequent among infants who have been given iron supplementing that of their diets, and that the infants who had been chewing at various objects (cribs and toys) ceased to do so, or did so much less, after the administration of iron was started for the treatment of their anemia.

Ectopic Pregnancy

Actual bedside diagnosis of ectopic pregnancy is far more difficult than one would be led to believe from the text book diagnosis. In this series correct postoperative diagnosis was made in 19 cases, or 30 per cent. Of course, this report does not indicate the numerous times ectopic pregnancy was made as the preoperative diagnosis and operation revealed no pregnancy in the tubes.

The classical description of a ruptured tubal pregnancy is:

1. History of one or more missed menstrual periods;
2. Sudden, severe, sharp pain in the lower abdomen;
3. Pain is followed by vaginal bleeding which is not, as a rule, very profuse;
4. Shock, fainting, collapse;
5. Uterus enlarged corresponding nearly with number of periods missed, crevix soft;
6. Mass in pelvis which is either in the cul de sac or to one side of the mid-line, and is very painful when palpated;
7. Pain caused by pressure over lower abdomen, and especially by any movement of the cervix.

These signs are so rarely present and the sequence of events so rarely follows this simple routine, that when I do encounter them, I am inclined to make another diagnosis. In our series, in which records gave the data, 14 patients had missed no menstrual periods nor had any irregularity of the periods, 20 had missed one period, and eight had missed two periods. In 35 cases the pain was quite characteristic of the classical picture—in the others, pain, though present, was not of the type usually described. Twenty-one had characteristic vaginal bleeding, but five had no vaginal bleeding.

Ectopic pregnancy is so frequently described as a very critical occurrence that its chronicity is not often recognized. Of the 63 patients, 53 gave very definite history indicating the time that elapsed between first symptoms of rupture and treatment. Of these 53 patients, only eight were operated on the day the primary rupture occurred, and of these, one patient died. All of the other patients who had what might be termed "chronic ruptured ectopic pregnancy" recovered. History in many of these cases shows not one rupture, i.e., internal hemorrhage, but several distinct attacks of pain. Many of these patients were up and doing their work between "ruptures" and only came to the hospital when they were unable to continue their daily routine.

Laboratory tests may give some aid in making the diagnosis, but no laboratory test gives absolute proof of correct diagnosis. In this series white blood cells were above 10,000 in 23 instances, the highest count being 25,800; and the count was below 10,000 in 16 instances, the lowest count being 6,200. Red blood corpuscle count was recorded in 23 instances, the lowest count being 1,800,000, and in three instances the count was over 4,000,000, and in eight instances between 3,000,000 and 4,000,000. Hemoglobin determination ranged from 20 per cent to 88 per cent. The Friedman pregnancy test has proved to be unreliable as an aid in diagnosing ectopic pregnancy.—Lee Monroe Miles, M.D., Albuquerque, New Mexico; Southwestern Med., Vol. XXII, No. 10, Oct. 1938.

A woman with urinary symptoms showed a wire hairpin in her bladder with a plain X-ray. Cystoscopy was negative. A second X-ray film showed the pin in the same position. Vaginal and rectal examination was negative. Explanation: The cassette used with the first two X-rays had a hairpin stuck on some adhesive cement. With the third film a different cassette was employed. —Clarence C. Saelhof, Chicago.

Incidence and Diagnosis of Cardiovascular Syphilis

CURTIS F. GARVIN, M.D.

THIS paper presents the salient features concerning the incidence and diagnosis of cardiovascular syphilis. The data are based on the published work of others and on cases observed at the Cleveland City Hospital. This latter series consists of 107 autopsied cases of syphilitic aortic insufficiency previously studied and reported by Dr. R. W. Scott,[1] and 56 autopsy cases subsequently collected by the writer—a total of 163 cases.

DEFINITION

Cardiovascular syphilis really means syphilis of the heart and the vascular system. Practically, however, it amounts to a discussion of syphilitic aortitis and its complications, the most common of which are dilatation and aneurysm of the aorta, narrowing of the coronary ostia, and aortic insufficiency. Instances of involvement of the heart muscle by syphilis have been reported but are rare. Involvement of arteries other than the aorta, such as the innominate, the carotids, the iliacs, etc., is not uncommon, but is of little practical significance. Cardiovascular syphilis, in short, virtually means cardio-aortic syphilis.

INCIDENCE

It is a well known fact that syphilis is one of the three great causes of cardiovascular disease. Usually it is exceeded in etiological significance only by the degenerative and rheumatic groups, and incidentally, of these three causes, syphilis is the only one for which preventive measures are available.

A knowledge of the incidence of syphilis in any given community is important, for it has been pointed out by many investigators that the incidence of syphilis varies with numerous factors. For example, it is well known that syphilis occurs with greater frequency in the Negro and in the lower class of society.

The figures from Cleveland City Hospital, a large charity hospital, are these: The 56 cases of syphilitic aortic insufficiency here added to those already published occurred in the seven-year period between 1930 and 1936 inclusive. During this period there were 583 consecutive autopsies performed on patients who had died primarily of heart disease. This indicates that syphilis accounted for almost 10 per cent of the cardiac deaths. This figure is in accord with the general experience, for the vital statistics indicate that 10 to 15 per cent of the deaths from organic heart disease in the registration area are due to syphilis.

In further considering the incidence of cardiovascular syphilis, one is struck by the tremendous disparity between the autopsy and the clinical evidence of frequency of occurrence. The work of Warthin[2] based on pathological observations indicates that approximately 90 per cent of all individuals with latent lues have cardiovascular involvement. Scott[3] feels that this figure is slightly high but agrees that 80 per cent will show cardiovascular involvement at autopsy.

The clinical evidence, on the other hand, is quite different. Statistical data on 10,000 cases collected by Turner[4] indicates that approximately 10 per cent of all patients with latent syphilis have demonstrable clinical evidence of cardiovascular involvement. This is corroborated by the work of the Cooperative Clinic Group[5] who discovered that approximately 10 per cent of 6,253 cases of syphilis in the late stage had cardiovascular disease. This striking paradox of 10 per cent involvement clinically and 90 per cent involvement at autopsy is worthy of emphasis and needless to say, indicates only one thing, i.e., the low index of clinical recognition of this condition.

DIAGNOSIS: GENERAL CONSIDERATIONS

The diagnosis of cardiovascular syphilis deserves attention for numerous reasons. There are few conditions in which early diagnosis is of greater importance than in syphilitic involvement of the cardiovascular system. This is true because of the fact that modern treatment is very efficacious if instigated before complications have occurred. Recognition of the complications is important in that therapy may still be somewhat helpful. But usually the diagnosis of these conditions is of more import from a prognostic standpoint, for the advanced stages of syphilitic cardiovascular disease are admittedly most serious. In fact, they are harbingers of death in a high percentage of cases.

In addition to a knowledge of the incidence

The Author

● Dr. Garvin, Cleveland, is a graduate of Western Reserve School of Medicine, 1932; member of American Heart Association; member of staff at Cleveland City Hospital; instructor in medicine, Western Reserve University School of Medicine.

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From the Department of Medicine of Cleveland City Hospital and the Western Reserve University School of Medicine.

which has been referred to, certain other generally recognized facts are of value in diagnosis. Syphilis affects men more often than women. This is indicated by the fact that in the 163 autopsied cases of syphilitic aortic insufficiency previously alluded to, there were 137 males and 26 females, a ratio of about five to one, whereas the ratio of male to female in regard to autopsies and admissions in general at Cleveland City Hospital does not exceed 2 to 1.

Age incidence is indicated by the following table:

Decade	20-30	30-40	40-50	50-60	60-70	70-80
	6	40	48	46	19	4

Thus it is seen that the largest number of cases occur between the ages of 30 and 60. The extremes encountered in this study were 23 and 79.

A knowledge of the length of time between initial infection and onset of symptoms of cardiovascular syphilis is also of value. This period may be as short as six to eight months (Paullin)[6] and as long as 40 years (Scott).[1] Usually there is a latent period of 10 to 20 years before the infected person manifests any symptoms or signs referable to the cardiovascular system. And in this connection it must be remembered that during this latent period a patient with syphilis may have non-syphilitic children.

The denial of a history of a chancre is not of much value in the type of patient encountered in a large charity hospital, for 40 per cent of the patients with proved syphilitic heart disease had no knowledge of ever having had a chancre.

DIAGNOSIS OF UNCOMPLICATED SYPHILITIC AORTIC INSUFFICIENCY

Much has been written concerning the symptoms and signs of uncomplicated syphilitic aortitis. In 1932, Moore, Danglade and Reisinger[7] suggested, in order of relative importance, the following criteria in the diagnosis of uncomplicated syphilitic aortitis:

1, Teleroentgenographic and fluoroscopic evidence of aortic dilatation; 2, a tympanitic, bell-like, tambour accentuation of the aortic second sound; 3, a history of circulatory embarrassment; 4, increased retromanubrial dullness; 5, progressive cardiac failure; 6, substernal pain; 7, paroxysmal dyspnea. They believed that the presence of three or more of these symptoms and signs in a young adult syphilitic patient without mitral disease or hypertension was strong evidence for the diagnosis of uncomplicated syphilitic aortitis.

A serious objection to these criteria is that the physical signs listed are those of aortic dilatation and as such are not those of uncomplicated syphilitic aortitis. Furthermore, the reliability of the so-called diagnostic symptoms has been seriously questioned. Years ago Scott[8] pointed out that such symptoms as substernal pain, oppression, and paroxysmal dyspnea might afford one clew to diagnosis in some cases, but that many exceptions were seen, particularly in his experience with patients in a charity hospital. He drew attention to the fact that symptoms other than those from aneurysm or myocardial failure were seldom noted.

Kiefer and Resnik[9] found that not one in 24 autopsied cases of uncomplicated syphilitic aortic insufficiency had had dyspnea on exertion, paroxysmal dyspnea or signs of myocardial insufficiency. In a study of 346 cases from the Brooklyn Hospital, Maynard[10] and his associates concluded that myocardial failure appeared only as a consequence of complications and that it was not due to an uncomplicated aortitis.

Wilson[11] analyzed 211 autopsied cases of syphilitic aortitis in regard to presenting symptoms. He demonstrated that cardiac or respiratory symptoms occurring in patients with syphilitic aortitis were due either to a complication of the syphilitic process or to some co-existing disease. He concluded that uncomplicated syphilitic aortitis was an asymptomatic condition and that no criteria dependent upon symptoms were reliable in making an early diagnosis.

The fact of the matter is that when one considers that in uncomplicated syphilitic aortitis the gross architecture has not been appreciably altered, no physiological or anatomical explanation for significant symptoms or signs can be advanced. The diagnosis of uncomplicated syphilitic aortitis at this stage must be inferential. In view of the fact that 80 to 90 per cent of patients with latent lues have cardiovascular involvement, the primary problem is one of diagnosis of latent lues. In other words, every patient who has or has had syphilis, regardless of treatment, should be suspected of having cardiovascular involvement. And in the recognition of latent lues, the Wassermann and similar tests are of greatest import. In short, barring false positive reactions which are rare, the positive Wassermann of latent lues means that there is a nine to one possibility that the patient has cardiovascular syphilis. Such a diagnosis is presumptive, but highly probable; in fact, much more correct than is clinical diagnosis in general.

On the other hand, a negative Wassermann or precipitation test does not exclude cardiovascular syphilis, for the fact that 10 to 25 per cent of all autopsied cases of syphilis have a negative blood test, is commonly recognized. This has been pointed out by Scott[8] in analyzing the material previously presented from City Hospital. In the more recent experience, 25 per cent of 78 autopsied cases of syphilitic aortitis had a negative Wassermann and 13 per cent of 62 of these same

cases had a negative Kline test. Such cases of uncomplicated syphilitic aortitis with negative blood tests are not susceptible of diagnosis. But in those cases in which the blood test is positive, barring false results, a presumptive diagnosis of syphilitic aortitis should be made on statistical likelihood alone.

DIAGNOSIS OF SYPHILITIC AORTITIS WITH DILATATION OR ANEURYSM

There is considerable confusion in the literature in the use of the two terms dilatation and aneurysm of the aorta. An aneurysm by definition is a dilatation of an artery due to changes in its walls. It may be diffuse (dilatation), or circumscribed, or transitional between these two. According to Pommer,[12] there is a fundamental difference between dilatation and aneurysm, although they may accompany each other, and aneurysm may develop from dilatation. Aneurysm is characterized by solution of the continuity of the elastic tissue of the media; dilatation is caused by mere thinning of the media.

However, most persons do not differentiate these two conditions so sharply, and indeed, a clinical differentiation based upon the condition of the elastic tissue of the media would be impossible. Accordingly, the difference between dilatation and aneurysm is usually considered to be one of degree. The term dilatation is used in those cases in which there is slight to moderate diffuse dilatation and the term aneurysm is reserved for the more marked cases of diffuse dilatation and for localized bulging. Accordingly, no sharp difference can be drawn between the symptoms and signs of dilatation and aneurysm.

In the diagnosis of syphilitic aortitis with dilatation, again latent lues is presumptive evidence of syphilitic aortitis and demonstration of dilatation makes the diagnosis more certain. Diffuse dilatation, like uncomplicated syphilitic aortitis, usually gives no symptoms. At best, symptoms are only suggestive and not pathognomonic. In regard to the physical signs, a tambouric quality of the second sound or increased retromanubrial dullness may be of assistance. Elongation of the aorta may result in upward displacement of the arch and activity of the vessel may then be felt by deep pressure in the suprasternal notch. Decreased elasticity may cause an increased systolic shock in the carotids. But even at best, physical signs are absent more often than not. The fact of the matter is that the most valuable evidence of syphilitic aortitis with dilatation is afforded by the X-ray, and probably the best all around method in this regard is the fluoroscopic.

Aneurysm of the aorta in the vast majority of instances is due to syphilis. For descriptive purposes it is traditional to divide aneurysms of the thoracic aorta into those of the ascending aorta, the arch and the descending aorta.

An aneurysm of the intrapericardial portion of the ascending aorta is usually considered to be an aneurysm of symptoms. In a high proportion of cases, an aneurysm in this location is associated with aorta insufficiency either from ring dilatation, from diseased aortic leaflets, or from both. The mouths of the coronary arteries may be narrowed. Thus the clinical picture may be dominated by the symptoms and signs of heart disease. Pressure upon or rupture into the heart or pulmonary artery is seen in unusual instances.

On the other hand, an aneurysm of the extrapericardial portion of the ascending aorta is ordinarily thought of as an aneurysm of signs, very briefly due to displacement or compression of neighboring structures such as the right bronchus, or the great vessels. Rupture into these structures is a possibility. In this location, with the aortic orifice uninvolved, an aneurysm may attain huge size with no evidence of heart disease. Physical examination may show abnormal percussion dullness or pulsation.

Aneurysms of the arch are aneurysms of symptoms. These usually extend posteriorly and compress or rupture into vital structures such as the trachea, bronchi or esophagus. Pressure on the trachea or the left bronchus by an aneurysm sometimes produces the phenomena of tracheal tug. Less commonly, aneurysms of the arch grow forward to form midline tumors. In such cases abnormal dullness and pulsations would be evident. Involvement of the vessels of the arch may cause a disparity in the pulse volume in the carotids or in the radial arteries.

Aneurysms of the descending aorta are the "aneurysms of latency" and are frequently overlooked. In such a location aneurysms may become very large before symptoms occur. The most common symptom is agonizing pain in the back due to involvement of nerves. Pressure on the left bronchus may result in collapse of the lung, with the subsequent development of pneumonia. Pressure on the left recurrent laryngeal nerve may cause hoarseness and a peculiar brassy cough, the so-called aneurysmal cough. Dysphagia may be an early symptom. Sudden death from rupture can occur.

Roentgenological study of aneurysms is very important because as a matter of actual experience clinical diagnosis in this condition is notoriously unreliable. It is safe to say that the majority of aneurysms are diagnosed either by X-ray or by post-mortem examination. X-ray study has a further advantage in that it definitely localizes and indicates the size of the aneurysm. In general, aneurysms are sharply outlined, have smooth rounded borders and frequently show expansile pulsations. Pulsations may be absent, however, if the sac contains a thick clot. Occasionally differentiation between an aneurysm

and a tumor cannot be made on a single examination and in such an event serial films are required to establish the correct diagnosis.

DIAGNOSIS OF SYPHILITIC AORTITIS WITH NARROWING OF THE OSTIA OF THE CORONARY ARTERIES

Syphilitic aortitis frequently causes narrowing of the ostia of the coronary arteries. This occurred in one out of every four cases in the series reported by Scott.[8] In two instances total obliteration of the mouths of both vessels was present. In the 56 cases of syphilitic aortic insufficiency here studied, significant narrowing of the ostia was present in 20 instances—a ratio of over one in three, again indicating the frequency of this complication.

Seeing the degree of occlusion of the coronary arteries so often present at autopsy, one is amazed that such hearts were able to carry on as long as they did. This is no doubt explained by the fact that the chronicity of the process permits the development of collateral circulation. This may be established through the other coronary artery, if only one ostia is narrowed, or through the Thebesian vessels.

In a relatively small proportion of these cases the syndrome of angina pectoris is present clinically, or heart failure due to coronary insufficiency may have dominated the picture. The correct diagnosis of these conditions is difficult. Electrocardiographic changes are not of much help and the diagnosis is usually made by exclusion.

DIAGNOSIS OF SYPHILITIC AORTIC INSUFFICIENCY

Syphilitic aortic insufficiency is invariably associated with syphilis of the aorta itself. The aortic insufficiency is usually due to syphilitic involvement of the leaflets, less often to ring dilatation. In either event, syphilis of the aorta is present, for as Saphir and Scott[13] have shown, syphilis of the aortic valves is due to an extension of the process from the aorta by way of the small vessels at the commissures. In fact, there is considerable doubt whether syphilis ever attacks the aortic leaflets primarily and independently of the aorta. In this connection, it must be re-emphasized that syphilitic cardiovascular disease may remain as an asymptomatic aortitis as long as 40 years before it blossoms into an aortic insufficiency. It is this fact which established the clinical dictum, i.e., that free aortic regurgitation appearing insidiously in an adult with a negative history of heart disease is syphilitic until proved otherwise.

The diagnosis of syphilitic aortic insufficiency therefore resolves itself into the diagnosis of syphilitic aortitis plus aortic insufficiency. Experience has shown that the patient with aortic insufficiency is usually asymptomatic until myocardial insufficiency develops. Then such symptoms as dyspnea, weakness, cough, and edema appear, but these symptoms are not peculiar of aortic insufficiency alone—they are merely those of a failing heart. Uncommonly, in advanced cases, the patient may actually report symptoms due to the aortic insufficiency itself. For example, there may be marked palpitation, a throbbing sensation in the neck, audible pulse beat, or vibration of the head or body with each heart beat.

The diagnosis actually rests, however, on physical signs, and of these two are of paramount importance: (1) the diastolic murmur at the base and (2) the characteristic steep rising, rapidly collapsing pulse.

The murmur, as has been noted, is diastolic for that is the period of the heart cycle in which the aortic leaflets fail to properly seal the aortic orifice, thereby allowing a regurgitant stream of blood to pass from the aorta back into the left ventricle. The murmur is early diastolic, following immediately after the second sound which may or may not be present. It is decrescendo, and more often than not, extends to mid or even late diastole. The murmur is smooth, high-pitched, and musical. In the cases at Cleveland City Hospital, as is usually the case, the murmur was heard better to the left of the mid-sternum than in the so-called aorta area in the second interspace to the right of the sternum. The diastolic murmur is accompanied by a systolic murmur more often than not. Accordingly, a too and fro or systolic and diastolic murmur is heard. This was true in 70 per cent of the 56 cases last studied. In exceptional cases the systolic element may be more prominent than the diastolic. This does not justify a diagnosis of stenosis, however, for syphilis alone does not produce aortic stenosis.

In advanced cases the murmur of aortic insufficiency is widely transmitted, often being heard at the apex. In this area it may take on a mid or late diastolic accentuation, thus constituting an Austin Flint murmur and simulating mitral stenosis.

The total series of 163 autopsied cases of aortic insufficiency from Cleveland City Hospital reveals the following unusual physical findings: In six instances, there was a diastolic thrill at the base; in seven, a systolic thrill at the base, and in one, a diastolic and a systolic thrill. even in those cases with systolic thrills there was no evidence of aortic stenosis at autopsy. In three cases, the diastolic murmur was audible several feet from the chest wall. In one instance there was a systolic thrill at the apex, and in one other a diastolic thrill.

The second important sign of aortic insufficiency is the characteristic steep rising, rapidly collapsing pulse. This is caused by the fact that in diastole the pressure in the aorta is lower than normal because of the reflux of blood back into the ventricle. Hence, at the next beat, in order

to maintain an adequate circulation, the heart must eject the normal amount of blood plus the regurgitated blood. This increased volume of blood going into an abnormally empty artery causes a steep rising high systolic pressure. The subsequent regurgitation of blood accounts for the rapid collapse of the pulse. This abrupt upjerk and rapid collapse of the pulse is a valuable sign and is almost always present in advanced lesions.

Because of the high systolic and low diastolic pressure, the pulse pressure or the difference between the two values is increased and this can be demonstrated by the sphygmomanometer. A typical blood pressure, accordingly, is in the vicinity of 160 or more millimeters of mercury systolic and 40 or less millimeters of mercury diastolic.

The cardiac mechanism in cases of syphilitic aortic insufficiency usually is normal. The relative rarity of auricular fibrillation is attested by the fact that in the 163 autopsied cases of syphilitic aortic insufficiency there were only three cases of chronic auricular fibrillation and one of paroxysmal auricular fibrillation. There were two cases of paroxysmal auricular tachycardia.

Aortic insufficiency places a burden on the left ventricle. Cardiac hypertrophy and dilatation result. At autopsy, the average weight of the 163 hearts was 600 gm. Clinically, myocardial insufficiency appears sooner or later. To the murmur and pulse of aortic insufficiency are now added the signs of a big heart and cardiac failure.

There are two peculiarities about the cardiac failure of syphilitic aortic insufficiency; (1) its rather abrupt onset, and (2) its relentlessly progressive nature. This is indicated by the fact that of the last 56 autopsied cases of aortic insufficiency, 44 died in their first cardiac failure; five survived their first failure but died in the second; four survived two failures and died in the third; and only one survived three failures to die in the fourth.

The clinical diagnosis was correct in 86 per cent of the 56 autopsied cases of syphilitic aortic insufficiency here reported. It will be recalled that these 56 cases occurred in 583 consecutive autopsies on patients who had died of heart disease. The grand average of correct clinical etiological diagnosis in the entire series was 73 per cent. Thus it is seen that fatal syphilitic heart disease is diagnosed with more accuracy than is fatal heart disease in general.

However, the important point is that correct clinical diagnosis of advanced syphilitic heart disease is of little benefit to the patient. The architectural distortion that has taken place is so great that treatment is of little avail. Instead, attention in diagnosis of syphilitic cardiovascular disease should be directed to the recognition of uncomplicated syphilitic aortitis, for at this stage treatment is highly efficacious. Only when it is generally recognized that latent lues is virtually equivalent to cardiovascular syphilis will the severe and fatal complications of this disease be prevented.

SUMMARY

1. Syphilis is one of the three great causes of cardiovascular disease. At Cleveland City Hospital, syphilitic heart disease accounts for approximately 10 per cent of the autopsies performed on patients who have died of heart disease.

2. Clinically, about 10 per cent of patients with latent lues show cardiovascular involvement —at autopsy, about 90 per cent show cardiovascular involvement.

3. Uncomplicated syphilitic aortitis is a disease virtually without symptoms or signs. The diagnosis can be made by inference in all patients known to have latent lues.

4. The diagnosis of syphilitic aortitis with dilatation or aneurysm can be made clinically in certain cases but usually requires roentgenological study.

5. Narrowing of the coronary ostia occurs in one-fourth to one-third of all autopsied cases of syphilitic aortitis. The clinical diagnosis of this condition is difficult and is usually made by exclusion.

6. The diagnosis of syphilitic aortic insufficiency resolves itself into the diagnosis of syphilitic aortitis plus aortic insufficiency. The diagnosis of aortic insufficiency depends on the characteristic diastolic murmur heard at the base, and the steep rising, rapidly collapsing pulse.

7. The cardiac failure of syphilitic aortic insufficiency is abrupt in onset and relentlessly progressive in nature in the majority of cases.

9209 MILES AVENUE.

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Use of Benzedrine in the Depressed Phase of the Psychotic State

LEONARD A. DUB, M.D., AND LOUIS A. LURIE, M.D.

A GROUP of 48 depressed female patients was selected from a service of about 1,500 patients at Longview Hospital. Those picked were chosen because they were the most depressed as revealed by their mood, speech, and actions. Their ages ranged from 18 to 75, and they had been institutionalized for periods of time varying from 10 months to 26 years. The diagnoses and their frequencies are as follows:

Involutional Melancholia	6
Manic Depressive Psychosis	12
Schizophrenia	11
Paranoid State	10
Mental Deficiency (one without psychosis)	7
Psychosis with cerebral sclerosis	2

The following procedure was used in this experiment: Five mg. of benzedrine were given twice a day to each patient. The first dose was given at breakfast, and the second was given with the noon meal. To those patients who refused to take the medication, the drug was mixed with the food. In certain cases the dosage was increased to a maximum of 10 mg. twice a day. This was done if no improvement was noted after a week's trial on the smaller dose.

The medication was continued for three weeks. A lactose placebo was then substituted without the knowledge of the attendants or patients. The placebo was continued for three weeks after which no medication was given for two weeks. Following this rest period, the patients were again placed on the placebo medication for four weeks after which benzedrine was again substituted, and continued for six weeks.

During the entire experimental period the daily regime of the patient was not altered in any manner. Recreational activities continued as usual, and patients were kept on the same ward unless their behavior warranted a change. Visitors and home visits were permitted as usual. .

The patients were observed daily, and personal interviews were held twice a week. At these times psychotherapy by suggestion and rationalization was practiced. Attempts were made to learn the nature of the various delusions and hallucinations exhibited by the patients, and these were rationalized to a greater or lesser extent. Very often two patients were interviewed together in an effort to teach them insight through mutual observation. No psychoanalysis was attempted, and no analytical expressions were used. The final observations were made three weeks after all therapy had been discontinued.

Daily charts recorded the effects of the therapy on the appetite, thirst, pulse, sleep, mood, and psychomotor activity. Weight and blood pressure were recorded weekly at the same hour, and after bed rest.

As shown in Table 1, 42 or 86 per cent of the group under observation showed a marked improvement when benzedrine was administered. A patient was considered as having been benefited by the therapy if she showed improvement in at least two of the three following criteria; namely, weight, cooperativeness, and psychomotor activity.

During treatment with placebo, five patients became so violent that they could no longer participate in the experiment.

Only 5 or 11 per cent of the remaining 43 patients in the series maintained their initial improvement, while 38 or 89 per cent relapsed when the lactose placebo was substituted for the benzedrine.

During the rest period of two weeks which followed, three more patients were lost to the experiment, one through discharge as apparently cured, and two because they became very violent. Of the remainder, 6 or 15 per cent remained im-

The Authors

● Dr. Dub, Columbus, is a graduate of University of Cincinnati College of Medicine, 1932; member American Psychiatric Association; assistant physician, Cincinnati State Hospital; psychiatrist at State Bureau of Juvenile Research.

● Dr. Lurie, Cincinnati, is a graduate of Ohio Medical College, 1911; member American Psychiatric Association; American Orthopsychiatric Association; American Association for the Study of Endocrinology; American Association for the Study of Feeblemindedness; National Association for the Advancement of Science; senior neurologist, Jewish Hospital, Cincinnati, director Child Guidance Home, Cincinnati; assistant professor Psychiatry, University of Cincinnati College of Medicine.

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TABLE 1

Psychosis	No.	Benzedrine 28 days		Placebo 21 Days		Rest 14 Days		Placebo 28 Days		Benzedrine 42 Days		Final 21 Days No Rx	
		Imp.	Unimp.	I	U	I	U	I	U	I	U	I	U
Involutional–Melancholia	6	5	1	0	6	2	4	1	5	6	0	1	5
Manic–Depressive	12	11	1	[a] 2	8	1	7	0	8	7	1	1	7
Dementia–Praecox	11	8	3	[b] 1	9	2	8	1	9	8	2	2	8
Paranoid–State	10	10	0	1	9	1	8	0	9	7	2	1	8
Mental Deficiency	7	6	1	[c] 1	4	0	5	1	4	5	1	2	4
Cerebral Sclerosis	2	2	0	0	2	0	2	0	2	2	0	0	2
	48	42 — 6 86% — 14%		A—2 Discont. B—1 Discont. C—1 Discont. 5 — 38 11% — 89%		6 — 34 15% 85%		3 37 8% 92%		35 — 6 85% 15%		7 — 34 17% 83%	

proved while 34 or 85 per cent remained unimproved.

Following this period the patients were again placed on placebo treatment. There was a continued decrease in the number who maintained their improvement, only three or 8 per cent holding their gains. In other words at the end of this period, 92 per cent of the patients in this series were practically in the same mental condition that they had been in at the beginning of the experiment.

After four weeks of this treatment, benzedrine was again administered. An immediate and striking improvement was noted in 35, or 85 per cent of the cases, while only six, or 15 per cent failed to respond.

An equally striking slump was noted when the benzedrine therapy was again discontinued, the results being practically the same as were noted during the rest period; namely, 34 or 83 per cent.

Similarly the per cent of improvement noted during the first month's treatment with benzedrine was practically the same as that noted during the final period of benzedrine therapy.

As far as the individual groups were concerned nothing of any marked significance was noted regarding their response to the drug. The paranoid condition cases and those suffering from cerebral sclerosis gave the best response while the dementia praecox cases responded the least.

Apparently the duration of the disease had also no bearing on the results obtained. This is well illustrated in Table 2. Age, however, seemed to be of some significance as the age group from 41 to 60 showed the highest incidence of improvement. This is shown in Table 3. However, the total number of cases studied is too small to draw any definite conclusions in this regard.

Table 4 gives in detail the changes noted in one of the specific characteristics; namely, change in weight. From this it will be seen that in this series no correlations can be drawn relative to the effect of benzedrine upon the weight of the patient. Although more patients lost than gained in weight, the numerical difference was so small as to be almost negligible. Appetite seemed generally improved throughout the whole course of treatment, and there were very few instances of anorexia. The incidence of thirst, however, was more marked during benzedrine sulfate therapy than during the other periods. Changes in blood pressure varied. Sometimes there was an elevation and other times there was a lowering of the blood pressure. The changes either way were never alarming or significant. Where there was an original rise with benzedrine sulfate it was in most cases not maintained throughout the period of benzedrine therapy.

More agitation, and greater irritability were observed when benzedrine sulfate was withdrawn than during the period of active medication. A few of the patients were more wakeful while taking benzedrene. However, at no time did this condition become annoying. Where the patient showed no improvement, no changes were noted in the delusional system or the contents of the hallucinations. (Illustrative cases are given at end of paper).

DISCUSSION

Benzedrine (beta-phenylisopropylamine or benzyl methyl carbinamine) has been shown to have a profound stimulating effect on the central nervous system[1, 2, 3, 4]. Its first clinical use was in the treatment of narcolepsy[5, 6]. Myerson[7] found that benzedrine sulfate usually raises the mood when the proper dosage for the individual can be

found. The rise in mood is often associated with increased energy[7, 8, 9, 10, 11], may increase confidence[8, 12, 13], and often cause true euphoria[7, 9, 14, 15, 16, 17]. Emotional display is often increased [8, 10, 16, 18], but Donley[18] states that it may also be decreased. Bradley[16] advances the theory that the stimulation of the higher centers may act in such cases by increasing voluntary control. Finally, it often increases motor activity[8, 9, 10, 11, 13, 19], and acts as a mental stimulant[8, 10, 13, 20] without actually bringing about a change in mental content.

These effects of benzedrine sulfate have indicated its use in mild depressions[7, 9, 15, 21] and in cases of anxiety[7, 15, 22, 23]. However, the consensus of opinion indicates that it does not change psychoses except for the decrease in negativism which renders the patient more accessible[10, 15, 18, 21, 24]. It seems to be of varying benefit in catatonic stupor[21, 24, 25], and although it has been found to be occasionally helpful in the treatment of dementia praecox, it may cause undesirable reactions in this type of patient.

Our experience with benzedrine sulfate at Longview Hospital has in general corroborated the findings of other workers.

Many of the depressions treated were cyclic in type, and it is, therefore, impossible to state categorically that the changes in psychomotor activity noted are the direct result of medication. However, the large percentage of rise in mood and cooperation each time benzedrine sulfate was given, the sharp fall each time it was withdrawn can hardly be called coincidental. As stated above, many workers have reported that euphoria is a frequent effect of the drug. In this series it might be said that it was the preponderant effect on which other effects depended. Increased cheerfulness is often one of the primary objects in the treatment of depressed states, for it may render the patient more accessible to psychotherapy, give the desire for activity and often for constructive action and thought, and above all make him willing to cooperate in his own cure.

In some cases it was found that the temporary stimulus afforded by benzedrine sulfate was all the patient needed to make a lasting improvement. Of the histories given below, numbers 1, 3, and 5 are of this type. To these a total of nine other patients could be added (three manic depressives, one schizophrenic, two each from the paranoid and involutional melancholia groups and one from the mental deficiency group). On the other hand, case histories 2, 4, and 6 illustrate the type of patients who responded well to benzedrine sulfate, but whose gain was not maintained after its withdrawal. Twenty-three others reacted in the same way (four manic depressives, four schizophrenics, six of the paranoid group, three of the involutional melancholia, four of the mental deficiency group and both of the arteriosclerotics). In some of these the rise in mood became general and was admitted by the patients; in others it manifested itself by an improvement in sociability and accessibility, without true euphoric effect or subjective improvement.

Depressed patients must, of course, be carefully watched for dangerous reactions. Whether of cardiac, mental or other types, they are usually apparent on small doses and contraindicate continued medication. As stated above, several patients were dropped from the group because the stimulation made them worse.

An intermediary group consisted of six patients in whom no apparent change was effected by medication. This group included three schizophrenics, two from the paranoid group and one case of mental deficiency.

It is well known that the blood pressure curve of the average depressive is extremely inconstant. However, in many cases higher pressures were recorded after the institution of benzedrine sul-

TABLES 2 AND 3

1 yr.		2 — 5 yrs.		6 — 10		11 — 15		16 — 26	
12		21		5		7		4	
I	U	I	U	I	U	I	U	I	U
9	3	17	4	3	2	6	1	3	1
75%	25%	80%	20%	60%	40%	85%	15%	75%	25%

Average Age 48.5 yrs.
Average Stay 5.5 yrs.

Age

18 — 30		31 — 40		41 — 50		51 — 60		61 — 75	
2		7		21		13		6	
I	U	I	U	I	U	I	U	I	U
1	1	3	4	16	5	12	1	4	2
50%	50%	43%	57%	76%	24%	92%	8%	67%	33%

fate therapy. As stated above, the increases were never alarming (even when they amounted to as much as 40 mm. Hg. systolic), and there were apparently no ill effects attributable to them. In most cases where there was an initial sharp rise in pressure it was not long maintained, which indicates that tolerance to the pressor effect of benzedrine sulfate may be readily developed. This has already been reported in the literature. Increase in blood pressure seemed to have a beneficial effect as a mental stimulus in some instances. This was particularly true of the cerebro-sclerotics, who derived benefit from the increased cerebral circulation.

With two exceptions the entire group was composed of patients who were under weight. Investigators[26, 28] have reported that under benzedrine sulfate therapy weight loss occurs most frequently with the obese, and Donley[18] states that it is often observed in mental cases as well. However, 17 of this series actually gained in weight in the first benzedrine sulfate period and none suffered a loss that was not made up after its withdrawal. In only rare instances was weight loss reflected in mood or general state, while it was sometimes apparent that the rise in mood tended to effect an increase in weight through improvement in activity, appetite, and digestion. But, generally speaking, there was little correlation between physiological effects and psychological response.

The poorest results were perhaps obtained in the schizophrenic group. This has been the experience of others[11, 18, 21, 24]. However, in one case there was excellent response, and good response in four. Slight or no improvement was apparent in four others, and two were worse with benzedrine sulfate. Thus it is obvious that great care should be exercised in stimulating schizophrenics because their reactions are unpredictable. The two cerebro-sclerotics were greatly benefited by benzedrine, but it is, of course, impossible to generalize from so small a group. For this reason the paranoid group may be taken as the one showing the best response: three were greatly improved, three considerably improved, two showed some improvement and two only improved little or not at all.

When the patients were grouped according to age or length of stay in the institution, nothing significant was noted as to the effects of benzedrine sulfate. In general those admitted most recently showed the greatest improvement, but the same relative improvement might have been expected in this group had there been no medication.

The question of addiction to benzedrine sulfate has frequently been raised, although those who have had the longest experience with it feel that there is little likelihood of such a phenomenon [7, 21, 26]. In this series a number of patients missed the medication when it was discontinued. When the placebo was substituted without their knowledge, some of those whose original depression returned were at a loss to understand why they did not continue to improve. However, the fact that they were desirous of continuing beneficial therapy is no evidence of addiction. Habit-forming drugs usually leave the patient in a worse state than before administration and require ever increasing doses to obtain the desired effect. In this group no patients not benefited wished to continue medication, and in no case was there a desire for larger doses.

TABLE 4

Benzedrine			Placebo			Rest			Placebo			Benzedrine			Final		
Gain	Lost	Same	Gain	Lost	Same	Gain	Lost	Same	Gain	Lost	Same	Gain	Lost	Same	Gain	Lost	Same
20	19	9	27	4	12	14	16	10	15	10	15	10	19	11	16	16	9

SUMMARY

Benzedrine sulfate in doses of 10 to 20 mg. was administered to a group of 48 depressed female patients ranging in age from 18 to 75, for two periods of three and six weeks respectively, controlled by a period of three weeks on placebo, followed by two weeks without medication and by four additional weeks on placebo. Daily charts were kept showing changes in appetite, activity, sleep, depressed tendencies and general state, and a weekly record of blood pressure and weight. Psychotherapy and other necessary medication were continued throughout the experiment. It was found that responses in affect, psychomotor activity, cooperation and accessibility, ranging from very slight to the spectacular occurred in the majority of cases under benzedrine sulfate therapy, whereas the converse was true when it was withdrawn. The stimulation given seemed to effect lasting improvement in 12 cases (25 per cent) while in 24 cases (50 per cent) the improvement lasted only while the drug was being given. The remaining 25 per cent were not benefited.

CONCLUSIONS

(1) Benzedrine sulfate appeared to be of benefit to the majority of depressives because of its effect on mood and psychomotor activity. The patients were rendered more accessible and cooperative, thus enabling the physician to direct their activities along proper lines. In some cases

it provided the stimulus necessary to effect an apparent cure; in others it produced improvement of varying degree. The best results were obtained in the cerebro-sclerotic type of patient and in the paranoid group; the poorest results were obtained in dementia praecox.

(2) Tolerance to the pressor action of cases of benzedrine sulfate appears to be frequently developed. The pressor effect in mental cases can be called dangerous only where the mental condition is complicated by cardiac disease or hypertension.

(3) It caused a transitory loss in weight in many cases, but had the opposite effect in others. This aspect of the drug is not considered of particular significance in the treatment of mental cases.

(4) Benzedrine sulfate is apparently not a habit-forming drug.

CASE HISTORIES

1. C. A., 52, married, primapara, involutional melancholia, admitted January 19, 1937.

Previous History: One paternal aunt and one maternal niece were mental cases. After completion of elementary school at 15 she worked as a clerk for five years and then married. Although at first a good housewife, she became depressed in 1932 due to the financial reverses of her husband. At the beginning of 1936 menstruation ceased and the patient became increasingly irritable, depressed, untidy and anti-social. In January, 1937, she had become restless and confused and was sent to Cincinnati General Hospital and was probated to Longview.

At the time of admission physical and laboratory findings showed nothing significant. Her psychomotor activity was decreased to the point of apathy, and she was confused, deeply depressed and delusional. Peculiar grimaces. There was no improvement on only theelin therapy. After the benzedrine treatment was instituted she complained of poor appetite and had a rapid pulse. She was given theelin and amniotin in conjunction with benzedrine sulfate. After three days she became more cheerful, active, reseasonable and cooperative, her appetite had improved and her pulse became normal. The confusion subsided although there was little change in mental content. The improvement was progressive throughout the course of benzedrine sulfate and the gain was maintained during the periods of placebo and rest. An additional improvement was evident in the second period on benzedrine sulfate, during which she gained four pounds, began to develop insight for the first time and ceased grimacing. As before, the gain was maintained after the cessation of therapy.

2. V. F., 36, married, multipara, manic depressive, admitted October 22, 1936.

Previous History: Father died at Longview at 40. After third year of high school patient had one year of business college, then married. Although inclined to be argumentative, she had a satisfactory family and social life until 1933, when her husband's financial reverses obliged her to do hard housework. She developed numerous somatic complaints and went to several physicians, but made no progress. She became increasingly depressed, cried considerably and developed numerous delusions of unworthiness. She became very apprehensive about minor accidents to her children. She also felt that people were unsympathetic and refused the help she needed. She was probated and sent to Longview April 23, 1935.

Physical and laboratory examination showed nothing significant. Shortly after admission she developed a manic phase with increased psychomotor activity and great elation, singing and playing the piano most of the time. She had good contact with her environment and was easily distractible. She did not admit having hallucinations. Although cognizant of the condition of the other patients, she had no insight into her own delusions of being the mouthpiece of the Lord. She was alternately depressed and elated.

At first she resented her husband's visits, but eventually became reconciled to him and was permitted to go home for a trial visit. She got on well for six months. In the meantime, her husband developed a love affair with his housekeeper and neglected his wife and family. After giving birth to a baby she became increasingly slovenly and depressed, due to her husband's infidelity, her own feeling of unworthiness and her habit of masturbation.

She became increasingly disturbed and was again committed to Longview October 22, 1936. Her mental condition was characterized by a profound depression without the previous delusions. She was well oriented and had excellent memory and fair insight.

When benzedrine therapy began, she had an agitated suicidal depression. As she did not respond to the initial 10 mg. dose of benzedrine, it was increased to 15 mg. daily. At first she complained of sleeplessness and poor appetite, but these symptoms were transitory. After two weeks she began to improve in all respects. She became a cheerful and careful worker and attended all amusements. The improvement continued for part of the placebo period, but she again became depressed, delusional and suicidal. This depression lasted until in the second benzedrine period, the dose was again increased, when she again became cheerful, active and more reasonable. Her husband paid a visit to her at this time. He seemed genuinely repentant and anxious to make amends, which contributed to her well-being. The improvement lasted a week. The husband then took her home for three days, during which she received no treatment. Following this she became increasingly depressed, lost weight and reverted to her former state without any subsequent gain.

3. A. F., 48, single, manic depressive, admitted January 14, 1936. Admitted because of an excited depression. She moaned, cried, wrung her hands, had also threatened suicide.

Previous History: No history of mental disease in parents, who were born in Germany. She attended parochial school, but left before graduation to nurse her invalid mother and keep house. Aside from an affair at the age of 18, she had no male companionship. Her menses ceased at 40. In 1931 she went to work in a laundry. In 1933 a well-to-do widower favored by her parents became her suitor, but she could not reconcile herself to marriage without love. She became extremely agitated and quit her job. She regretted her action and had fits of crying. She

was sent to a private sanitarium for several months, but left because of the economic strain. At home she became untidy and suicidal. She was sent to Cincinnati General Hospital, but her family was appalled at her associating with other mental cases. After several short stays at Cincinnati General, she was sent to Longview.

When benzedrine sulfate therapy was begun the patient was suicidal, showed markedly reduced psychomotor activity, looked and spoke in a very depressed manner. She did not respond to the minimum dose of 5 mg. twice a day, but began to improve on 15 mg. daily. She complained of thirst and had a rapid pulse, but became much more cheerful, active and cooperative and gained seven pounds. She began to work in the laundry and was an excellent worker. The improvement was so striking that she was discharged at the beginning of the placebo period. She adjusted well at home, but again became very depressed three months later and was returned to Longview July 20, 1937. She was again placed on benzedrine therapy and within two weeks was again in excellent condition.

4. L. M., 52, widow, manic depressive, depressed, admitted April 2, 1935.

Prevous history: No mental disease in family aside from a neurotic sister. Completed the sixth grade in school and married young. After 17 years she obtained a divorse and remarried. Because of jealousy she divorced a second time and re-married again. She had a very changeable disposition, varying between cheerfulness and depression. There was an apparently uneventful menopause in her early forties, but an ovarian tumor was removed in 1934, after some months stay in a private sanitarium.

After attempting suicide on two occasions she was committed to Longview with a depression characterized by reduced psychomotor activity, suicidal tendencies, delusions that people talked unkindly about her, a necrophobia accompanied by a habit of washing her hands, and occasional remoteness. Physical and laboratory examination revealed nothing significant. This condition persisted at the time benzedrine sulfate therapy was instituted. She showed little change the first week, but complained of sleeplessness and poor appetite. By the second week she was no longer suicidal. When the dose was increased to 20 mg. daily she showed great improvement in mood, appetite and general state. At the end of a month of benzedrine therapy her weight had increased from 80 to 88 pounds and was improved in all respects.

She began losing ground after a week of placebo, and then again became increasingly depressed, delusional, and negativistic. Although her appetite and weight were unimpaired her general state of health declined. She responded slowly but perceptibly to benzedrine, particularly when the dose was increased to 15 mg. daily. She became more cheerful and cooperative and even did considerable work on the ward. Her state of health and well-being and her weight went up to 94½ pounds. She was, however, no more active and no less delusional. After medication was discontinued and her depression again became profound.

5. M. L., 46, single, mental deficiency with psychosis, admitted December 21, 1911.

Previous history: Delinquency and infantile paralysis. Since admission she had never been a difficult patient but had never been well enough to be discharged and could not be used as a worker. She was morbid, negative, and retarded and usually very depressed and irritable. She walked with difficulty. She weighed 120 pounds when treatment began.

She responded well to the minimum dose of benzedrine, but complained of thirst and inability to sleep. However, she gained five pounds the first month, became cheerful, active, and cooperative, working regularly after the second week, in spite of a rheumatic ankle. Prior to benzedrine sulfate medication, she had practically refused to walk. The period of placebo and rest were characterized by a loss of 2½ pounds, increased irritability, resentment, apprehension, depression, and crying. She responded promptly to the renewal of benzedrine therapy, gained many pounds in weight, and again became active, cheerful, and cooperative. The improvement was progressive and persisted after all therapy was discontinued. She remained an excellent, contented, and healthy worker.

6. J. S., 34, single, schizophrenic, admitted July 16, 1936.

Previous history: No history of mental disease in family of German descent. Patient was slow to learn in school, quiet and rather schizoid. Worked as a seamstress for 19 years. Had frequent crying spells. A source of great resentment was having to do picket duty during a strike. Although courted for six years, she quarreled with her suitor because he wanted her to work after their marriage. Very religious. In 1935 she began to have attacks of depression, usually of only a month's duration; but an attack in January, 1936, was more lasting. She was sent to a private sanitarium in June and finally admitted to Longview State Hospital.

Her depression was characterized by excitement, profound depression, a sense of guilt and hallucinations of sight and hearing. Thinking she had committed an unpardonable sin, she saw nude figures which told her she had lost her soul and was going to have a baby through her mouth. She admitted homo-sexual relations. She became increasingly paranoid and resistive, and attacked several nurses and patients, apparently without provocation. She freely admitted hallucinations and paranoid ideas, but would not discuss her love affair or homo-sexual relations. When her hallucinations were not paranoid, she became disturbed, but she was usually inactive, staring into space or weeping. She was not a good worker. This condition persisted until treatment began. Although she complained of thirst, she became cheerful, active, and cooperative and worked regularly in the laundry. The hallucinations continued, but were less paranoid. She was readily accessible and did not believe the examiner could not hear the voices. During the month on benzedrine sulfate her weight rose from 105 to 106 pounds. Two days after she was put on placebo, she became very irritable, depressed, and struck a patient apparently without provocation. However, she continued to eat well and to gain weight. The depression continued with increasingly paranoid hallucinations until the second course of benzedrine sulfate, when she again became cheerful and her hallucinations became less paranoid. There was, as before, a marked increase in sociability and cooperation. She was the only patient who gave evidence of an erotic urge during benzedrine sulfate therapy, admitting to the

examiner that she felt happy because she was love-sick. There was no depression during the entire six weeks on benzedrine, and most of the gain in weight was maintained. Her weight was 108 pounds. At the conclusion of the final rest period she was still doing well, but a week later fell back into her periodic depressions.

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DISCUSSION

J. L. Fetterman, M.D., Cleveland, Ohio: Drs. Dub and Lurie are to be complimented on the excellence of this practical paper. Its merit lies in the use of a large number of well studied cases, and the careful control by alternating periods of benzedrine administration with periods of placebo medication. The resulting study constitutes a clinical contribution which should be of value to every physician.

According to this study, the administration of benzedrine improved the physical and mental status of the patient while the use of the similarly appearing placebo had no effect. These results are more favorable than those of other authors. (Carlisle and Hecker, M. Bull. Vet. Admin. 13:224-227, January, 1937; Nathanson, J.A.M.A., Vol. 108. Feb., 1937; Davidoff and Reifenstein, J.A.M.A., Vol. May, 1937; Schube et al. Am. J. Psychiat. Vol. 94, July, 1937, and Wilbur, J.A.M.A. Vol. 109, Aug., 1937.)

My own experience, limited to ambulatory office patients, is favorable, though the results are not as striking as those reported by Dr. Dub and Lurie. Without disputing the report of these authors, it might be appropriate to caution against the unpleasant reactions which certain patients experience. Overactivity, trembling, thirst, restlessness and agitation are not uncommon. Also there is commonly an uncomfortable feeling of exhaustion after the exhilaration has subsided.

Though many patients develop increased self-confidence by the dynamic drive thus acquired, others are distressed by the increased energy, without the goal or direction in which to use this energy. One patient, after taking benzedrine, described this discomfort by saying, "I feel like a man behind the wheel of an auto whose motor was racing, but without possessing the knowledge of how to operate that car." Benzedrine undoubtedly facilitates activity and should be distinctly valuable to those who are fatigued or depressed on a physical or chemical basis. However, for patients whose depression is the result of inner conflict between the Ego and Super-Ego, benzedrine may merely increase the distress. In such patients, sedatives rather than stimulants are still the therapy of choice.

Have the authors any theory as to how it affects mood, and are the favorable results an indication that endogenous depressions are due to physiologic rather than psychogenic causes?

A man, aged sixty-two, had had very tight anterior urethral strictures for years. Dilatation had become so painful, and results so unsatisfactory, that in desperation he amputated his scrotum and penis with a razor. Bleeding was controlled by an ordinary piece of cloth. Three days later, when the doctor first saw the patient, his condition was good. Since the operation he had voided without difficulty through the perineum. He appeared to be normal mentally, and explained that so long as he was impotent anyway, the operation seemed to be the best way out.—Alexander H. Peacock, Seattle.

Treatment for Acute Conjunctivitis

ALBERT L. SCHONBERG, M.D.

IT IS characteristic of the general practitioner to tread lightly in eye conditions, and well might he do so. On the other hand there is no reason why he cannot successfully treat the ordinary case of conjunctivitis. On the average, from six to eight days of discomfort for the conjunctivitis patient could well be avoided if the general practitioner would but appreciate the value of a ¼ per cent zinc sulfate solution in preference to boric acid or argyrol. The two latter mentioned are very useful in their place; boric acid, still being a very fine eye wash which can be used with great safety, is valuable almost solely for its physical action. Likewise argyrol, in anything under 10 per cent solution has comparatively small effect on the majority of cases of conjunctivitis.

The armamentarium is most simple and consists only of the following:

1. A topical anesthesia, which could be any of the following:
   a) 2 per cent butyn solution
   b) 1 per cent holocaine solution
   c) ½ per cent pontocaine solution

(Cocaine should not be used because of the deleterious effect upon the cornea).

2. A 1 to 2 percent solution of silver nitrate.
3. Several small swabs made by wrapping a piece of cotton around the edge of a tooth pick or a match stick.

After you have made your diagnosis, which I will discuss in a moment, and the topical anesthesia is applied (three drops at intervals of 20 seconds), the upper lid is everted and the swab is dipped into the 1 per cent silver nitrate and gently drawn across the palpebral conjunctiva, and before reverting a few drops of saline are used as a wash. Then, having the patient look up, a fresh swab with silver nitrate is drawn along the inner side of the lower lid and followed again by a few drops of saline solution. A prescription for ¼ of 1 per cent zinc sulfate is written; this is to be used one drop three times a day after hot compresses. The results of this in most cases are very gratifying to the patient and the physician. There is slight discomfort for about an hour or two after the anesthesia wears off, but by the following day the condition is very much improved. In the recalcitrant cases, the procedure may be repeated two or three times. The above then is all very simple, and as you may already have decided, our greatest problem is in the diagnosis.

Iritis and glaucoma must always and forever be borne in mind. Unfortunately, the average case of iritis, the acute form, is accompanied by much congestion of both the bulbar and the palpebral conjunctiva. The everted lid in the case of iritis may be very red and very meaty in appearance, making one sometimes overlook the possibility of internal infection in the eye. The old standby of the formation of vessels diminishing from the limbus toward the periphery, as an aid to diagnosis of iritis, is, as it has always been, a great help. But unfortunately an acute iritis is too often atypical in this respect since the congestion may be so great that the entire bulbar conjunctiva will be red and all the vessels engorged, thus spoiling our textbook picture. Our first best aid then, to a differential diagnosis would be to suspect an iritis and glaucoma until these two are proved innocent. Let us rule out iritis first. We already have seen that redness and inflammation of the lids is not always a distinct help, so let us assume that both are present. Place the two forefingers over the upper lid as the patient looks down as though you were taking a tactile tension. Deep tenderness is a point in favor of iritis. Now take the head off the ophthalmoscope so that the bulb is exposed. Bring it within a centimeter or two of the cornea so that the iris is well illuminated (if you have a focal illumination bulb and a condensing lens to use for this purpose, so much the better). In a case of iritis that is not too early, the iris will appear somewhat dull. This conclusion can best be drawn by comparison with the other eye. The pupil may be found slightly smaller and the reaction to light slightly slower. Careful examination will reveal a turbidity in the anterior chamber which is not present in the good eye. The tension is not a factor here since it it is only in the later cases that we have changes sufficiently marked to discover by tactile perception. This, then, is the early picture of iritis without its complications and in that stage where it would be most likely confused with the conjunctivitis which we want to treat.

It would be much easier to confuse an acute glaucoma with an acute iritis than an acute glaucoma with an acute conjunctivitis. Some night you

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The Author

● Dr. Schonberg, Cleveland, is a graduate of Ohio State University College of Medicine, 1935; member of staff at Lakeside Hospital; demonstrator for third year medical students.

might be called upon to pay a visit to a patient in great distress. He probably will be past 40. His main complaint will be severe headache, which may or may not radiate from one of the eyes. He will have gastric upsets, nausea, and vomiting. He may be most anything but the picture of a patient with a definite eye complaint. Yet if the eyes are overlooked, the diagnosis may be missed. At this time, more than on any other occasion, tactile tension will prove of real value, for even the most uneducated fingers will sense the comparative hardness of this glaucomatous eye. Once suspecting this source of trouble, a careful focal examination will reveal again a reddened bulbar and palpebral conjunctiva. The cornea as compared with the good eye may appear slightly clouded. The iris may appear essentially healthy although the pupil in the glaucomatous eye may be larger than the normal eye and react sluggishly to light.

What now is the typical picture of a true conjunctivitis? Age is not a factor though more commonly we may find it in the young school child because of greater carelessness and the greater chances of contagion. A typical history would be as follows: A 12-year old child is brought in to see you complaining that one or both eyes has been tearing profusely and feels as though there were a foreign body under the lid. Questioning will reveal that the day before yesterday he felt as though he "got something in his eye." By nightfall this eye had become red. He felt as though there were sand or gravel in his eye. It itched, it burned, it teared, and there was sensitivity to light. The following morning he noticed a yellowish discharge and his lids stuck together. The other eye too seemed to have become infected after about 48 hours, with sensations very much like those of the primary eye. Inspection will reveal very tiny crusts along the lid margins. The bulbar conjunctiva may have finely engorged blood vessels running throughout which become decompressed after slight pressure through the lids. Examination of the cornea reveals that it is crystal clear and the iris behind it is perfectly normal having good color and reacting quickly to light. There is no deep sensitivity on palpation, though there may be slight lid pain and the lids may be slightly swollen. Eversion of the lids shows a uniform deep redness throughout. Treatment as described in the second paragraph will render relief within 48 hours and cure within three to four days in the average case. Untreated, this condition may persist for one week, two weeks, and in some cases assume chronicity with acute exacerbations every six months.

You may have been wondering what harm could be done by this treatment should you make a mistake in diagnosis, and use it where it would not be indicated. Contraindication would be found in allergic conjunctivitis and in those conjunctivitides due to some physical, chemical, or photic agent, such as smoke, acid fumes, electric conjunctivitis, etc.

A case history is protection against these, since the treatment herein outlined would decidedly aggravate the condition. A missed diagnosis of more serious ailments would be unfavorable more because of the lack of specific treatment than because of any possible harm done by the zinc and silver. The safest path to follow then, would be the treatment of the typical cases of which there are very many, and to leave those cases which in any way appear unusual and which appear to be exceptionally stubborn to the specialist.

CONCLUSIONS

An effort has been made to define the common, simple, acute conjunctivitis case and with this, the plea that the inefficient prescription of boric acid and its ilk be substituted by the less perfunctory and more highly successful treatment described herein. The physician who directs a patient to the use of boric acid will tend to lead him to self medication, the many proprietary drugs on the market today, and to all the dangers of a late diagnosis of a serious eye illness.

524 KEITH BLDG.

Undulant Fever

Artificially induced fever is apparently a very good method of treatment, where it is available. Prickman of the Mayo Clinic, using the Kettering hypertherm, has reported excellent results in 18 cases; he maintains a temperature of 150° for 5 hours. Usually three treatments are required.

Drug therapy up till recently has been disappointing. Intravenous injections of mercurochrome, arsphenamin, and acriflavin have been advocated only to fall into oblivion. Sulphanilamid, however, seems more promising, although the number of cases so treated is not yet large enough to draw conclusions. A rational basis for the use of this drug has been supplied by the work of Welch, Wentworth and Mickle, who showed that in people with undulant fever, and also in guinea-pigs infected with Brucella, sulphanilamid caused a marked increase in the opsinocytophagic activity of the leucocytes. There have been a number of favorable reports, mostly of single cases. In the three cases of Stern and K. W. Blake the fever disappeared in 4 days and did not return. Other observers have noted an interval of 7 to 8 days before the patient became fever-free. Full doses may be necessary, for in the case of Blumgart improvement did not occur until the titer of sulphanilamid in the blood reached 7.7 milligrams. The results on the whole are encouraging and further trial of the drug is indicated.—Wilder Tileston, M.D., New Haven; Jr. of Conn. S. Med. Soc., Vol. 2, No. 12, December, 1938.

Surgical Management of the Diabetic Patient

A. TALBERT BOWERS, M.D., AND THOMAS P. SHARKEY, M.D.

SURGERY has assumed an important rôle in the modern management of diabetes mellitus. In the past the rôle of the surgeon has too often been accepted as that of administering the "coup de grace" to a poorly managed diabetic patient who has long been in need of surgical treatment. As a result of this unfortunate situation a certain stigma is often attached to the surgical care of diabetic patients. Formerly, operations were seldom performed on diabetic patients because of the high incidence of diabetic coma following surgery and the development of other dangerous complications directly or indirectly attributable to the diabetic state. In the year 1923, at the New England Deaconess Hospital[1], there were 69 operations on diabetic patients. At the same hospital, from January 1, 1931, to April 1, 1936, a total of 1,030 operations was performed on diabetic patients, with an operative mortality of 6 per cent.

According to Joslin[2], there are approximately 500,000 diabetic patients in the United States today and it is estimated that about 2,500,000 more people now alive will develop the disease before they die. The duration of life of the diabetic patient is increasing with modern treatment, and children who lived less than two years before the discovery of insulin have almost ceased to die. While the mortality rate has increased in those diabetic patients past 50 years of age it has decreased for those under 50 years of age. Since the youthful diabetic population is increasing, a much more diversified type of surgery can now be expected in diabetic patients than was formerly encountered. Acording to Root[1] every other diabetic patient requires surgical treatment before he dies.

The mortality following surgical operations in well-managed diabetic patients has fallen so low that no longer should surgery be contraindicated in a diabetic patient or be resorted to only as a last emergency measure. Walters, et al[3], has found the mortality rate following surgery on diabetic patients at the Mayo Clinic to compare favorably with that performed on non-diabetic patients. In a total of 2,086 operations performed on diabetic patients at the Mayo Clinic between 1921 and 1932, involving 1,028 major and 1,058 minor operations, there were 69 deaths, or a mortality of 3.3 per cent. According to Walters, et al, "No patient after October, 1923, has been refused the benefits of surgery on the ground of diabetes. Selection of patients for operation has been made on the basis of exactly the same indications as those followed for selection of patients who are not afflicted with diabetes." John[4] reports a gross mortality of only 7.7 per cent and a corrected mortality of 5.8 per cent in 648 operations upon diabetic patients. Recently Standard, et al[5], have demonstrated anew the importance of proper surgical management of diabetic patients. The mortality in their clinic-treated group was only 6.9 per cent, while in the non-clinic group the mortality was 20.8 per cent.

The purpose of this communication is to report the results of 91 consecutive operations performed on private diabetic patients at the Miami Valley Hospital during the past three years. The mortality rate has been 8.8 per cent. In no case could death be attributed to diabetes *per se*. Four of the eight deaths occurred following thigh amputations for long-standing gangrene with sepsis. One death followed an operation for carcinoma of the stomach; another followed prostatectomy; one from coronary heart disease following hysterectomy; and the last occurred seven weeks following the insertion of a nail into a fractured neck of the femur.

Too often diabetes is not recognized in a surgical patient until dangerous complications have arisen, or serious results have followed an operation on a supposedly "mild" diabetic patient without adequate preoperative and postoperative care. It is extremely important to know whether a candidate for surgery has diabetes or not, and this can be readily determined by simple chemical tests of the urine and blood. Glycosuria alone does not necessarily mean diabetes, but this should prompt the physician to perform a blood sugar determination and await the report before contemplating surgery. This procedure should be as important to the surgeon whose patient has glycosuria even though it be only a trace, as are his demands for leucocyte counts in suspected cases of appendicitis. It is essential to carry out a thorough physical examination in every such patient. The statement "a man is as old as his arteries" applies particularly to the conditions

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The Authors

● Dr. Bowers, Dayton, is a graduate of University of Michigan Medical School, 1927; member of senior surgical staff at Miami Valley Hospital, Dayton.

● Dr. Sharkey, Dayton, is a graduate of the University of Cincinnati College of Medicine, 1930; associate, American College of Physicians; assistant director of diagnostic laboratories at Miami Valley Hospital; consultant in medicine, Dayton State Hospital.

found in diabetic patients. Postmortem studies made by Root and Sharkey[6], [7] have revealed the nature and extent of arteriosclerosis in diabetes, and a detailed study should be made of the vascular system in a diabetic patient before surgery is contemplated. For instance, if studies of the cardiovascular system reveal advanced coronary heart disease in a diabetic patient with gangrene of a lower extremity, it is preferable to amputate above the knee joint. Low thigh amputation is less shocking to the patient and compels the patient to limit his physical activities.

In our hospitalized patients routine laboratory work includes a complete blood count, erythrocyte sedimentation test, Wassermann test, blood sugar, non-protein nitrogen and cholesterol determinations, and two hourly urinalyses. The carbon dioxide combining power of the blood is determined when acidosis is present. The blood chloride level is studied if the patient has been vomiting or has had diarrhea. In the presence of fever, frequent blood cultures are taken because of the high incidence of septicemia in these patients. X-ray studies are made of the extremities if an infection exists. Electrocardiograms are taken on all patients past middle age.

Additional information can be obtained as regards the risk involved in a given case by studying other factors such as the severity of the diabetes, the duration of the disease, the existence of complications such as acidosis and infection, the state of nutrition of the patient, and the proper interpretation of laboratory data. The status of such a patient should be quickly arrived at and an early diagnosis made, together with prompt decision as to time of operation. Delay in operating has been responsible for many deaths in diabetic patients and too frequently operations have been delayed "until the diabetes is controlled." In many of these patients the diabetes can only be controlled when the source of the infection is removed surgically, and delay means unnecessary dehabilitation of the patient with the invitation of disastrous consequences. Joslin[8] has so ably stated, "Do not treat the laboratory test instead of the patient."

PREOPERATIVE CARE IN ELECTIVE CASES

If an emergency surgical condition does not exist, the patient may be placed upon a regular diabetic diet with the exception of the coarser foods, and sufficient insulin given to control adequately the hyperglycemia and glycosuria and to render the patient free of acidosis. We have made it a practice to give the diabetic patient 150 grams of carbohydrate in his diet during the 24 hours before operation in order to store sufficient glycogen in the liver and tissues to prevent ketosis during or following surgery. The use of starvation or under-nutrition diets to render the patient sugar-free before operation is dangerous and predisposes the patient to ketosis and other serious complications. A liberal supply of fluids should be encouraged before operation and chlorides can be supplied in broths or be given intravenously or subcutaneously if necessary, unless there is some specific contraindication. If vomiting has been present physiological salt solution plus glucose can be given intravenously or subcutaneously to restore the electrolytes of the blood and to prevent ketosis. Diluted orange juice, ginger ale or oatmeal gruel can be alternated in amounts of 120 grams every three or four hours. Insulin can be given to these patients every three or four hours depending on the color test of the urine.

During the past year we have employed protamine zinc insulin in patients just prior to the time of the surgical operation, giving at this time approximately one-third to one-half of the total dosage of insulin administered during the preceding 24 hours. With this method we have eliminated the danger of hypoglycemia during the operation. By using protamine zinc insulin before operation in conjunction with regular insulin following surgery we have obtained more uniform control of the diabetes. Fowler, et al[9], produced much better control of the diabetes following surgery with protamine zinc insulin than with unmodified insulin. The skin at the site of the incision should be kept clean, free from trauma and greased with lanolin to prevent cracking and infection. Anemia or any other medical complication should be corrected if possible in these elective cases before operation.

EMERGENCY SURGERY

The presence of an emergency surgical condition in a diabetic patient should accelerate any diagnostic procedures or preparatory treatment needed. Delay produced by attempting to control the diabetes over a period of time before instituting surgery is often the greatest contributing factor in surgical mortality in these cases. Facilities should be available in the hospital whereby the blood sugar and CO_2 combining power determinations, blood count and urinalysis can be reported within one-half hour. If extreme hyperglycemia or ketosis is present physiological salt solution, combined with glucose if necessary, can be administered intravenously in combination with one dose of protamine zinc insulin, followed by repeated subcutaneous injections of unmodified insulin. A few hours devoted to such treatment often produces a marked improvement in the general condition of the patient. In the presence of diabetic coma an emergency surgical operation can be performed without interruption of the specific treatment of the coma state.

ANESTHESIA

As a general rule an anesthetic agent should be administered to the diabetic patient which

gives the greatest margin of safety. The familiarity of the anesthetist with certain anesthetics may be the deciding factor in some instances. We have preferred local or spinal anesthesia where possible, since postoperative care of the diabetic state is accompanied by less nausea and vomiting and usually can be managed without any great change in diet and insulin therapy. A period of several days can thus be saved in establishing the patient on a regular diabetic schedule. Local infiltration should not be used in tissue where the blood supply is poor or where infection is present. Spinal anesthesia has been the most satisfactory procedure in surgery of the lower extremities and lower abdomen. The contra-indications to spinal anesthesia in non-diabetic patients apply also to the diabetic patient.

General anesthesia produces hyperglycemia and acidosis even in the normal individual according to Walters, et al[3], and this is intensified by postoperative vomiting and unavoidable starvation. This physiological action of general anesthesia can be counteracted to a great degree if proper preoperative and postoperative care is instituted. Nitrous oxide-oxygen anesthesia, where applicable, has been in our experience the general anesthetic of choice and as a rule its use has not been followed by marked nausea and vomiting. When combined with local anesthesia it has often eliminated the use of a more depressing anesthetic. Where muscular relaxation is necessary for any length of time it may not be satisfactory. Cyclopropane has been used with good results in some of our cases as well as ethylene, but nausea and vomiting sometimes follows the latter.

We have seldom used ether since during the period of etherization the formation of glycogen apparently ceases. Bloor[10] has shown that following the administration of ether to a normal dog the blood fat is increased from 40 to 100 per cent, due to the increased solubility of the fatty substances in the tissues in the blood-ether mixture. Hyperglycemia and acidosis follow the administration of ether with a subsequent temporary diminution in the excretion of urine, nitrogen, glucose and acetone bodies. Brow and Long[11] have likewise found that following both ether and chloroform a great loss of glycogen occurs in the heart muscle. The nausea and vomiting following ether administration are difficult to combat and unless carefully managed may lead to diabetic coma. We have never used chloroform as an anesthetic in a diabetic patient since it is generally agreed that it is harmful.

We have regarded it as unwise to use amytal or evipal. Long[12] has shown that resynthesis of glycogen in skeletal muscles is delayed under amytal anesthesia, while Best, Holt and Marks[13] have found that amytal decreased the glycogen content of resting skeletal muscles. We have discontinued the use of morphine and other narcotics preoperatively in many of our cases and give relatively small doses in other cases, since they produce hyperglycemia and often incite nausea with vomiting.

POSTOPERATIVE CASE

Following the operation, while the patient is still under the effect of the anesthetic, a hypodermoclysis of 1500 to 2000 cc. of physiological saline solution is started, to which is added 75 grams of glucose. The needles can be inserted while the patient is in the operating room and the hypodermoclysis administered after the patient returns to his room. It may be necessary to restrict fluids by mouth for several hours to prevent gastric dilatation, but as soon as possible we administer water in small amounts, broths, and later, diluted orange juice and ginger ale in quantities of 120 grams every three or four hours. In addition to fluid replacement this procedure furnishes carbohydrate to the patient to offset ketosis, and it is our policy to furnish approximately 150 grams of carbohydrate daily for the first 48 hours. Protein can be added in the form of cereal gruel and milk during the first 48 hours with little attention being paid to the addition of fat at this time. Usually during the evening of the operative day 500 cc. of physiological saline solution, to which is added 50 grams of glucose, is given intravenously. We have given the intravenous solution in the evening in order to allow the cardiovascular system time for readjustment following the administration of the anesthetic. We have followed this procedure since we observed a death immediately following the administration of an intravenous solution just after an anesthetic had been given.

The extent of coronary heart[6] disease even in the absence of symptoms or signs must be remembered in these cases. The administration of fluids as described above is continued the following day if the patient has suffered much vomiting following operation or if sufficient fluids and carbohydrate cannot be taken by mouth. It is usually impossible to supply adequate fluids by mouth. We believe that the administration of sufficient fluids is not only valuable in restoring the normal electrolyte balance of the blood and tissues, preventing ketosis, aiding in the storage of glycogen, curtailing vomiting, and in establishing a normal diabetic regime more quickly, but also prevents tissue desiccation and favors healing of operative wounds. Insulin can be administered following the surgical operation every two, three or four hours as necessary, depending on the color change of the urine, such as 20 units if red, 15 units if orange, 10 units if yellow, and 5 units if yellow-green. By omitting insulin when green tests are obtained frequent and severe insulin reactions may be eliminated. If protamine zinc insulin has been used previously it may be necessary to decrease the insulin dosage some-

what. The urine should not be tested immediately after the administration of the hypodermocylsis or intravenous solution if glucose has been added, in order to avoid errors in the interpretation of the tests. If the patient is unable to void for the urine tests we have taken frequent micro blood sugar determinations in order to avoid catheterization. Usually at the end of 48 hours the patient can be placed upon a soft diabetic diet with the administration of insulin upon a definite schedule. In our hospital these urine tests are performed on the patient's floor by the nurses and thus considerable time is saved in awaiting laboratory reports and a regular schedule is maintained.

Nursing care, so important to the diabetic patient, is not understood by the average nurse and a small detail overlooked may prolong the confinement of the patient to bed for weeks. An accurate record of the intake and output of fluid with a record of the food not eaten is essential for proper care of the patient. A Balkan frame attached to the bed enables the patient to turn more readily and to lift himself. A cradle should be placed over the patient's lower extremities so as to prevent the bed clothing from coming into contact with the skin which can be easily irritated and infected. The rubber sheeting covering the mattress should be removed since this may lead to the development of pressure sores and carbuncles. After amputation of an extremity the other foot should be protected by a woolen stocking. The heels should be kept off the bed by a pillow placed under the popliteal area and the tendo achilles. Bed sores should be watched for on the pressure areas such as the elbows, shoulders and spine; and pads of lamb's wool should be applied if the skin becomes irritated. Frequent turning of the patient helps to prevent this and our patients are turned at least every two hours. The skin is kept well greased with lanolin to prevent cracking. Wet dressings are employed intermittently rather than continuously to avoid maceration of the skin and the subsequent interference with collateral circulation. If warm solutions or hot water bottles are used the temperature of the solution is kept below 120 F. because of the well known tendency for the diabetic skin to be less sensitive to thermal changes. If a hot water bottle is used a towel is first placed next to the skin. If Dakin's solution is used for irrigation purposes the skin surrounding the area to be irrigated can be protected by the application of a rubberized cement which has been diluted with two parts of ether, over which there is placed a layer of boric acid gauze. Complete asepsis is necessary in the management of surgical dressings.

The surgeon who understands the physiological and pathological changes occurring in diabetes mellitus will have the best surgical results. Ignorance or oversight of these principles may lead to disastrous consequences. His surgical decision must be based upon a consideration of the general condition of the patient combined with the local surgical condition. Fully realizing the tendency for diabetes to accelerate infection and frequently to mask it the surgeon is faced with a great responsibility in this type of case, especially so when procrastination may mean failure. Joslin[1] has stated, "The factors which favor surgical success in diabetes are first of all an early diagnosis and an early decision to operate."

The surgeon should understand thoroughly the methods for the evaluation and differential diagnosis of peripheral vascular disease, since this type of case will comprise a large proportion of his surgical diabetic practice. Too often the distinction is not made between gangrene and an infected toe with osteomyelitis. A draining sinus in the extremity should be thought of as osteomyelitis until proved otherwise. A careful study of the peripheral blood supply and the nature of the pathological condition will prevent the conversion of dry gangrene to moist gangrene, or to a rapidly ascending gangrene through the mismanagement of wet dressings.

The surgeon should know the indications and contraindications for the use of the various forms of passive vascular exercise, such as Pavaex therapy, and should not subject every diabetic patient with peripheral vascular disease to this form of therapy without careful deliberation. He should select the anesthetic on the basis of the patient's physical condition and the presence or absence of complications of diabetes. The surgeon should conduct the operation in the least possible time commensurate with safety, with a minimum of tissue traumatization and with conservation of the blood supply. Such antiseptic solutions as iodine, bichloride of mercury, and phenol derivatives that have been known to injure the skin and tissues of diabetic patients should be avoided. Tourniquets should be eliminated in surgery on the extremities since gangrene has been reported following their use. Elective operations should be avoided which require the use of bladder catheters, or that traumatize the urethra, such as vaginal hysterectomy; in two such cases in our series severe bladder and renal infection occurred.

Following surgery the incision should be kept clean and necrotic tissue removed early. The use of drains especially in surgery of the lower extremities should be discouraged since they not infrequently lead to the development of infection. The skin should be protected well if Dakin's solution is used. The surgeon must realize the beneficial effects of exercise upon diabetes and get the patient out of bed as early as is feasible with safety. The patient should not be kept in bed to[4] control the diabetes. The surgeon should

be able to recognize both insulin shock and diabetic acidosis; this knowledge is of paramount importance in safeguarding the welfare of the patient. Since abdominal pain is of frequent occurrence in non-complicated diabetic coma the surgeon should examine these patients with the internist in order better to differentiate those cases of coma that are complicated by an acute surgical condition. Frequently diabetic patients with abdominal pain are placed upon the surgical service, when the pain was only a manifestation of diabetic coma. It must be remembered, however, that an acute abdominal surgical condition may be the precipitating cause of the coma, and the surgeon must thoroughly understand both the medical and surgical aspects of diabetic coma in order to avert a catastrophe. McKittrick[14] has ably discussed the differential diagnosis of these conditions in a recent publication. The surgeon should be thoroughly familiar with the various kinds of artificial limbs and to be enabled to advise the patient as to the proper type for his particular condition. The patient should be encouraged to walk by artificial means as soon as possible following amputation. The surgeon must also learn something about shoe construction since ill-fitting shoes are responsible for many cases of gangrene.

The surgical diabetic patient should be treated in the medical ward and the medical man must assume full responsibility for the management of the diabetes. Frequent surveillance of the patient is necessary following surgery, and in cases of coma, constant attendance is required. It is the responsibility of the medical man to deliver the patient to the surgeon in the best possible condition and not to delay surgery because of inefficient management. Acidosis or coma occurring during or following surgery is usually the result of poor medical treatment and should produce as much embarrassment to the medical man as the rupture of an appendix in a patient under observation by the surgeon. The use of a starvation type of diet, restriction of fluids, and mismanagement of insulin not only favors many of the medical complications of diabetes, but also contributes to the failure of wound healing and invites infection. The presence of some glycosuria without acidosis for several days following surgery is considered by many men not to be harmful and this should be taken into consideration in the administration of insulin at this time.

Insulin should not be injected into areas where fat atrophy exists since the absorption of insulin may be retarded. An insulin map is of aid to the nurses who administer insulin. In older patients with attendant arteriosclerosis the blood sugar should not be reduced too quickly or to low levels with insulin. The discarding of urine specimens immediately following the administration of glucose solution by intravenous or subcutaneous methods will often avoid misinterpretation of the urine tests. The attempt to "cover" the amount of glucose given by such routes with insulin frequently leads to error since there is no method by which the endogenous insulin of the patient can be calculated. The administration of insulin based upon frequent urinalyses or blood sugar determinations is the safest method. The occurrence of hypoglycemia may produce serious consequences in certain patients, such as the development of hemorrhages in the eye following ocular surgery.

Promptness in the administration of insulin can be attained by the testing of the urine by the nurse on the same floor as the patient. Blood sugar reports should be returned promptly to facilitate medical treatment. The diet should be carefully regulated for several days following surgery to furnish enough available carbohydrate. Nausea, vomiting and abdominal distention should be avoided by small feedings every three or four hours. A soft diabetic diet can be tolerated usually in two to four days and in a short time a regular diabetic diet can be administered with an average carbohydrate intake of about 150 grams, protein varying from 1 to 1.25 grams per kilo gram body weight and fat below 100 grams. In the presence of hyperthyroidism or liver disease it is usually advisable to raise the carbohydrate to 200 grams or more daily.

The diet should be well balanced and should contain all of the necessary vitamins. In many undernourished diabetic patients it may be necessary to supply extra vitamins through medication. The tendency to osteoporosis occurring in patients who are confined to bed for some time must be considered and additional calcium given in the diet or by medication. The average adult requires about 0.7 grams of calcium daily and a child 1.0 gram. Since some of these patients are very susceptible to fractures from slight trauma all precautions must be taken to prevent such accidents. The patient should not be overfed during his period of inactivity and the diet can be increased proportionately later in the course of convalescence.

As soon as the patient is placed upon three meals a day insulin is given before each meal and at bedtime depending on the urine tests for about 24 hours. If protamine zinc insulin is to be used it is given before breakfast and unmodified insulin given in conjunction with it for several days. This procedure has shortened hospitalization in our experience. The beneficial effect of exercise must not be disregarded and the insulin dosage should be modified when the patient becomes more active.

Complications must be searched for in the postoperative diabetic patient just as in the nondiabetic patient and unusual symptoms or signs developing in such a patient must not be at-

tributed to diabetes *per se* without some foundation. An unexplained fever without symptoms may indicate the presence of urinary tract infection. The paucity of symptoms and signs of urinary tract infection have been stressed before[15]. We have discontinued the use of diathermy and short-wave treatments in all of our diabetic patients since several have suffered skin burns even though the treatment given was less intense than usual and convalescence was considerably delayed. Where possible, hypodermic injections should be avoided to prevent possible infection.

In our hospital a course of instruction in diabetes is started with members of the family of the patient immediately, and as soon as possible with the patient. Instruction is given in the room of the patient and also a series of lectures in a room designated for that purpose. We believe that a diabetic patient can maintain constant and adequate control over his disease only in proportion to the knowledge he has pertaining to it. In 312 consecutive diabetic patients whom we have treated during the past three years only one has returned in diabetic coma and serious surgical conditions have been prevented in others who have returned at the earliest appearance of the complications.

Finally, the mortality rate in the surgical diabetic patient will be reduced in the average hospital only when a special diabetic service is organized and responsibility centralized. The treatment of these patients can not be supervised by a number of physicians or be relegated to the intern. Statistics show that under such conditions the mortality rate is certain to remain high.

SUMMARY AND CONCLUSIONS

1. Surgery in diabetic patients, once limited for the most part to amputations and to excision of carbuncles, has become much more diversified since the discovery of insulin.

2. The mortality rate following surgery in adequately controlled diabetic patients compares favorably with that in non-diabetic patients.

3. Glycosuria occurring in any candidate for surgery should have prompt and immediate investigation before operation to determine whether or not the patient has diabetes.

4. A thorough physical examination with special reference to the cardiovascular system should be performed in every patient and adequate laboratory data accumulated.

5. The medical condition of the diabetic patient should be improved as quickly as possible. Delay in instituting surgical intervention should be avoided by the efficient management of the diabetes and other medical complications.

6. The preoperative treatment of the surgical diabetic patient should be directed towards supplying sufficient carbohydrate, with insulin if necessary, to provent ketosis, correction of dehydration and loss of blood electrolytes by the administration of physiological saline solution and glucose, and the correction of other medical complications.

7. The administration of protamine zinc insulin to the patient just prior to the operation assures better control of the diabetes following surgery with less danger of hypoglycemia.

8. The anesthetic should be chosen which gives the greatest margin of safety and produces the least deleterious effect upon the diabetes.

9. The surgical operation should be performed with the least possible tissue traumatization and the greatest conservation of the blood supply.

10. Immediate or postoperative care of the patient is chiefly concerned with the avoidance of ketosis by the administration of sufficient carbohydrate with insulin and the copious administration of fluids by intravenous and subcutaneous routes.

11. The gauging of the insulin dosage by frequent micro blood sugar determinations and urinalyses prevents extreme hyperglycemia or hypoglycemia thus affording better control of the diabetic state.

12. Expert nursing care is necessary in order to avert many undesirable complications.

13. The surgeon and internist can contribute to a lower surgical mortality of diabetic patients by acquiring a better knowledge of the physiological, pathological and clinical aspects of the disease.

14. Postoperative complications must be constantly searched for and if present treated early.

15. Education of the patient with regard to his disease is essential for the maintenance of future control of his diabetes and the prevention of many complications.

16. The organization of a diabetic service for the care of surgical diabetic patients will lower the mortality rate.

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Hemorrhoidectomy: With Special Reference to Postoperative Care and Complications

CLAYTON C. PERRY, M.D.

THE treatment of hemorrhoids depends on their size, the quantity of bleeding, and the degree of protrusion. Despite the successful treatment of milder types of hemorrhoids by injection and electrocoagulation methods, there still remain a great many cases that must be subjected to surgical treatment, if the hemorrhoids are to be satisfactorily eradicated. Operation must be performed when there is severe bleeding and protrusion of internal hemorrhoids, and in all cases in which there is prolapse, gangrene, severe edema, or strangulation. The patient who has to have a hemorrhoidectomy usually has both external and internal hemorrhoids. The latter are usually three in number, and are situated to the anterior, and right and left of the midline.

One of the first questions a patient asks regarding a hemorrhoidectomy is, "How much pain will I have? Everyone says it is terrible." These fears are well founded, for the pain is excruciating, if the operation is poorly and improperly performed, without adequate attention to a few important details. Under the best of conditions, a certain degree of pain is experienced following a hemorrhoidectomy, but when the correct technic is followed, both during and after the operation, the patient's suffering can be greatly reduced.

Patients who are to have a hemorrhoidectomy are admitted to the hospital the night before the operation. They are made comfortable in bed, and receive a light dinner. A hot saline enema, administered through a soft rubber catheter (No. 18), is given before they retire. A hard rubber tip should never be used on a patient with hemorrhoids, and soap-suds enemas are contraindicated. A sedative is prescribed, so that the patient will be sure to have a restful night.

The morning of the operation, the patient receives a second saline enema, and is instructed to get out of bed to expel it. If a bed pan is used, much of the fluid may be retained and cause annoyance during the operation. It is important that the patient should void before going to the surgery. The patient is not shaved, because this is not necessary, and only causes itching and discomfort during the period of convalescence. Neither is it necessary to irrigate the bowel with antiseptic solutions. If local or caudal anesthesia is to be employed, morphine and barbiturates are given before the patient goes to the surgery. Thus he is quiet and relaxed when he enters the operating room.

Submitted August 15, 1938.

The Author

● Dr. Perry, Cleveland, is a graduate of University of Maryland School of Medicine, 1920; member Alumni Association of the Mayo Foundation; American Proctologic Society, North Central Clinical Society; proctologist at Lutheran, St. Vincents, Charity, St. Alexis Hospitals; consultant at St. Johns Hospital.

The position of the patient on the operating table is important. He should be placed on the abdomen, and the buttocks should be elevated with pillows under the pelvis. This position affords comfort to the patient, and yields satisfactory exposure of the anal canal and rectum. In this position, the parts are practically in normal repose, as contrasted with the uncomfortable and awkward lithotomy position. In the latter, particularly with inhalation anesthesia, there is more engorgement and resultant distortion of the anorectal tissues, which may make a comparatively easy operation exceedingly difficult.

The type of anesthesia used for hemorrhoidectomy depends on the preferences of the individual surgeon. I prefer local infiltration, using a solution of 1 per cent novocaine, to each ounce of which three drops of epinephrine are added. The average hemorrhoidectomy can be performed with from 15 to 25 cc. of solution. It is never necessary to use 2 or 3 ounces of novocaine. With our present knowledge of local infiltration, sacral, and low spinal anesthesia, it seldom is necessary to subject the patient to general anesthesia with ether. Nitrous oxide is not ideal for anorectal work, where good relaxation of tissues is desired. The combination of avertin and nitrous oxide is satisfactory in a great number of cases. Of the combined anesthetic agents, I prefer avertin together with local infiltration of novocaine. If the anesthetic agent is instilled correctly, complete relaxation and anesthesia are produced.

The tissues of the anorectal region should be manipulated with the greatest care. Burning and crushing should be confined to rectal mucosa only, and never should be applied below the anorectal margin. All sutures should be confined to the same area. If divulsion of the sphincter muscles is done at all, it should be performed gently, and with the fingers, never with the

bivalve speculum. The internal hemorrhoids are removed by the ligature method. The ligature is inserted before the hemorrhoid is excised, and extreme caution is exercised to see that the stump is tied securely. Afterwards, the external hemorrhoids or tags are excised without ligation. It is almost never necessary to ligate a vessel following the removal of external hemorrhoids, and the wounds are never sutured, but left open to heal, either by first intention, or granulation.

When the operation is complete, the wounds are inspected for bleeding, and the rectal ampulla is likewise examined for blood and retained fecal material. The rectum should always be empty before the patient is returned to his room. As a rule, the only packing is a small piece of iodoform gauze placed in the anal canal. Occasionally, if there is any doubt as to the hemostasis, a piece of soft rubber tubing (No. 18) can be used. A large pack, or a large tube wrapped with gauze should never be employed. It serves no useful function, and only tortures the patient. To lessen postoperative pain, from 3 to 6 cc. of a 1 per cent diothane solution are injected around the denuded areas. The injection must be made slowly, so that the solution is distributed evenly, to obtain the best results. Oil anesthetic agents can also be used for this purpose, but are more hazardous.

The postoperative care is one of the most important features of the treatment of hemorrhoids. Too often the patient is sent to his room, receives morphine every few hours, is catheterized frequently, suffers excruciating pain, is starved, and is not allowed to have an evacuation of the bowels for a week. The intern or resident is instructed to remove the plug in a few days. This is a cruel procedure, and causes the patient untold agony. By the time a patient has endured all these horrors, he is likely to feel unfriendly toward the surgeon, the interns and nurses, and even himself. The patient who has suffered from such procedures is the one who leaves the hospital, telling his friends never to have a rectal operation, and making the assertion that he had rather die than go through the agony again. This may sound far fetched, but I am sure that any proctologist will corroborate my statement that this is the story he hears repeatedly from his patients, and that it is sometimes difficult to persuade one who should be operated upon, that barbarous treatment of hemorrhoids is unecessary, and that the operation can be undergone without undue suffering.

Hot packs are applied immediately after the patient has returned to his bed. These packs are placed firmly against the anal canal, and are covered with large moist pads, over which is placed a hot water bottle or an electric pad. A large binder holds these in place. The packs should be changed only two or three times in 24 hours, but the heat must be kept constant. The hot packs are soothing, and in many cases afford more relief from pain than the administraton of morphine. Of course, if the patient is having severe pain, morphine is given every three or four hours, but in the average case, but one or two doses of the drug, and sometimes none at all, are required.

The patient's pulse is taken every hour during the first 24 hours, and the blood pressure every two hours. The nurses and interns are instructed to check the wounds for bleeding, and to report any increase in pulse rate, or any abnormal quantity of bleeding.

A common and annoying condition following a hemorrhoid operation is the patient's desire and inability to void. With the use of hot packs, this complaint has been reduced materially. If the patient is unable to void and the bladder is distended, he is placed in a hot sitz bath and allowed to void while in the tub. If this procedure fails, of course resort must be had to catheterization. Whereas it was the custom to catheterize almost every patient, it now rarely is necessary.

The patient is allowed to have only clear liquids until the morning of the third day, when he receives a soft diet. At this time, he also gets a hot saline enema, administered through a soft catheter, and the small piece of iodoform gauze, which was inserted at the operation, is usually expelled with the enema. Sitz baths are given twice or thrice daily, beginning on the second day after the operation. The patient is permitted to walk around, and is dismissed on the fourth or fifth day following the removal of the hemorrhoids. On the second day, petrolagar (plain) is given twice daily, and is continued thereafter until the wounds are completely healed.

With this regimen, the great majority of patients recuperate without incident, and without undue suffering. But no matter what precautions are observed during the operation, and however exacting the postoperative care, occasionally complications do ensue following a hemorrhoidectomy.

Of these, the most alarming is hemorrhage, which may be immediate or delayed. By immediate hemorrhage is meant excessive bleeding which occurs within 48 hours after the operation. Severe postoperative bleeding is usually from the operative area, where an internal hemorrhoid was removed. There is always slight bleeding from the peri-anal skin margin, which is usually controlled by the hot packs or pressure. This is not in the least alarming, but bleeding from the stump of the internal hemorrhoid is alarming, dangerous, and can even be fatal.

Patients dread rectal operations, because of the horror stories they have heard of the pain that friends or relatives have undergone, and many of them also have the fear of bleeding to death, as

they have heard that this has happened following hemorrhoidectomy. Patients relate instances of such catastrophies so frequently, that it is quite natural that the surgeon is always on the alert to guard against this possibility. If a patient should die after a simple surgical procedure, the stigma attached to the surgeon would be difficult to live down for months or years.

Serious difficulties sometimes arise following hemorrhoid operations because the interns and residents are not acquainted with the possibility of postoperative hemorrhage, nor with what symptoms to expect, nor with what procedures should be instituted. It is the duty of the surgeon always to instruct the resident, intern, and nurse in the possibility of hemorrhage, and the symptoms to be watched for. The patient should be observed carefully; the pulse should be taken every hour; the blood pressure at least every two hours; and a report should be made to the surgeon if the patient has any untoward complaints. The residents in the hospitals with which I am connected are also advised, if there is any doubt in their minds, to insert into the rectum a soft rubber catheter, and to irrigate the bowel, instilling a few ounces of hot saline at a time, and permitting the water to return through the catheter into a pan. In this way it is possible to decide whether or not there is any extensive hemorrhage. If the returned water is slightly tinged, the chances are that there is no real bleeding. Should the return flow be bright red, accompanied by small clots and perhaps some dark blood, it is correct to assume that there is sufficient bleeding to warrant investigation. It is much better to subject the patient to another trip to the surgery and another anesthetic, and to find nothing, than to assume a *laissez faire* attitude, only to be called back to the hospital later, when the patient is almost exsanguinated, and in serious danger.

The bleeding from the stump of an internal hemorrhoid is always intrarectal, because the bleeding point is above the sphincter ani muscles. Hence no blood escapes until the rectum and colon are full, and an evacuation is produced, similar to that following an enema. The patient may expel a large quantity of fresh blood and many clots in the bed before anyone is aware of his condition.

One of the first signs of intrarectal bleeding is a feeling of fullness in the rectum. This may be slight or marked, depending on the quantity of blood present. Occasionally, however, when this symptom is present, the rectum is empty. Under local infiltration anesthesia, this sense of pressure may develop during the operation, and may last for several days. Nevertheless, the complaint of a sensation of fullness in the rectum must never be ignored, because it may be the first indication of intrarectal bleeding. With intrarectal bleeding, the patient not only complains of a sense of pressure, but also a bearing-down sensation, and the desire to go to stool. As the bleeding continues, the blood fills the rectum, and also ascends to fill the sigmoid and often a large part of the colon. With the gradual filling, the patient complains of abdominal discomfort, with much rumbling and gurgling, as if there were a large accumulation of gas. At this point he becomes restless, pale, and perspires profusely. He looks ill, usually is nauseated, and vomits. The pulse rate increases and the blood pressure is lowered; air hunger and thirst are also common symptoms.

The treatment of intrarectal bleeding demands immediate action. The patient is taken to the operating room, placed on the abdomen with pillows under the pelvis. Local infiltration or caudal anesthesia can be used. Local infiltration with novocaine can be repeated, even though it was used twelve hours previously. The anal canal is not dilated, but a finger is inserted, and usually with its withdrawal, there is a gush of blood and clots. A Hirschman anoscope is then inserted, and as much of the blood as possible is removed by suction, before any attempt is made to inspect the hemorrhoidal area. The next step is to inspect the anorectal ring, and the hemorrhoidal stumps; it is from the latter that bleeding usually occurs. In two of my own cases, the stump of the anterior hemorrhoid was the site of the bleeding. By placing Pennington clamps, right, left, anterior, and posterior, at the anal skin margin, adequate retraction with some eversion of the anal canal, is obtained. This gives good exposure which is a great aid when suturing the bleeding stump. The bleeding area is resutured as soon as possible, and the operative field is again examined to make sure that there are no other bleeding points.

It is always advisable to insert the sigmoidoscope and to remove as much blood as possible with the suction apparatus, and to examine the mucosa of the rectum as far as the scope will permit. After these procedures, a piece of iodoform gauze and a rubber tube are placed in the rectum. The latter permits escape of gas and old blood. The iodoform is a good deodorant. The patient is placed in his bed in shock position, and a transfusion of blood is administered, if his condition demands it. Again the pulse and blood pressure are taken every hour for at least 48 hours. Sufficient morphine is given to keep the patient comfortable, and hot packs are applied. The drainage from the tube is watched carefully for bright blood.

The first two or three days after such a hemorrhage, a liquid diet is prescribed. A soft diet and petrolagar (plain) are given on the third day. At the same time, repeated irrigations are given through the tube, and on the fourth or fifth

day, a saline enema, and then the tube is removed. The iodoform gauze usually is expelled with the enema. If not, it is removed a day or two later. The patient should not be dismissed from the hospital until the stool is free from blood. He is advised to continue taking petrolagar or mineral oil at home, also to take sitz baths twice daily, to avoid straining at stool, and to report immediately any showing of blood.

In the last ten years, I have seen three immediate and two delayed hemorrhages following hemorrhoidectomy. The latest incident of this type occurred but a short time ago in a patient who was the brother of a physician. In this instance, the intern and resident in the hospital were acquainted with the postoperative regimen, but unfortunately had neglected to visit the patient from noon until midnight. They appeared then only when summoned by the nurse who told them that the patient was bleeding. I was called immediately, and when I examined the patient, he was restless, very pale, and slightly nauseated. In the operating room, it was found that the rectum and probably the entire colon were filled with blood, because a large quantity of blood clots were expelled, and more were removed by suction. The bleeding point was ligated; the patient received a blood transfusion. He recovered satisfactorily, and left the hospital six days later, at which time the erythrocytes numbered more than four million.

Had this condition been discovered earlier in the evening, the patient would have lost very little blood, and it would not have been necessary to give a transfusion, nor to call the members of the family to the hospital at an early morning hour, subjecting them to blood typing, and the procedure necessary for blood transfusion, as well as the mental anguish they had to suffer, when they knew that such an emergency had arisen.

HANNA BUILDING.

An imperforate hymen in a girl, age thirteen, caused a retention of twenty-five and one-half ounces of menstrual fluid, and this, in turn, symptoms of a kidney or ureteral condition. Cystoscopy and X-ray examination demonstrated pressure on the left ureter, with a temporary hydroureter. A general surgeon decided that it was a pyonephrosis, and advised that the left kidney should be drained for five or six weeks, and then a secondary nephrectomy performed.—Parke G. Smith, Cincinnati.

A man, eighty years of age, with urinary incontinence for several years before and after a prostatectomy, was cured by doses of whole pituitary gland extract and mixed treatment tablets. His blood and spinal fluid Wassermann were negative.—Paul R. Stalnaker, Houston, Texas.

Obesity in Childhood

Exercise is not stressed since it so increases appetite that the net effect is frequently nil. Fluid restriction and salt-free diets affect only the water content of the body and have no effect on the adipose tissue itself.

The first essential in the diet is that it be sufficiently restricted. This usually means less than 1,000 calories daily. The advice frequently given to merely maintain the present weight and allow the child to grow into it is too conservative, since many of these children already carry enough weight for a normal adult. The second essential is that the diet be as complete as possible and that it be properly supplemented with necessary vitamins. The supplementary vitamins can be given in one of the combination capsules which are now available or may be given separately if desired. If all the food requirements are met by giving sufficient protein, minerals, and vitamins, these restricted diets are surprisingly well tolerated even by children who are accustomed to eating several times as much.

Thyroid extract in doses of one-half to one grain is given, and increased or decreased according to the child's reaction. Most of the children take fair-sized doses of thyroid without showing symptoms and that finding may be taken as evidence that the medication is needed, regardless of the basal metabolic rate.

Anterior pituitary-like hormone, or pregnancy urine extract is the pituitary preparation of choice. This is contrary to the experience of others who prefer anterior pituitary extract in some form. My preference is based on experience with both materials together with the theoretical advantage of a substance with much greater potency per unit volume, and less protein content hence lessened reactions. Treatment is begun with 100 units (1 cc.) twice a week, increased to 200 units three times a week.

No untoward effects have been noted from the use of this combined method and results have been very satisfactory. A composite chart showing results in several cases is presented.—E. W. Hancock, M.D., Lincoln; Neb. S. Med. Jr., Vol. 23, No. 12, December, 1938.

A child, four years old, presented a glans penis which was served from the penis except for a fine cord which contained the blood supply. An unintelligent mother explained that one year previously she had fastened a hairpin on the foreskin in an attempt to do a circumcision. The surface of the glans and penis were healed as though a clean incision had been made. The doctor stitched the glans back in place, reestablished the urethra, and obtained good results.—William P. Willard, San Francisco.

Cooperation By Roentgenologist and Oto-larygologist

EDGAR R. HARGETT, M.D.

THIS is a presentation of some of the problems that occur in roentgenological studies in otolaryngology, and are presented to emphasize the importance of complete co-operation between the roentgenologist and the otolaryngologist. The cases also serve to sharpen the point that roentgenological films in this specialty at least are not to be used as a game where one receives reward for guessing, but that both the radiologist and the otolaryngologist must have a complete history and adequate physical findings before any attempt is made to read the films; otherwise grave errors may be committed.

The patients were studied with the view of developing any mistakes that could have been made in the diagnoses and treatment had not the roentgenologist consulted the otolaryngologist. The films were shown the roentgenologist and the most probable reading obtained; then the case histories and clinical findings were discussed, and the diagnoses corrected. The variations are shown by the examples:

1. Anterior-posterior views of this patient's chest were presented to the radiologist, who stated that without any history, he thought the most probable diagnosis was pleurisy with effusion, filling the entire right chest. The patient had a local tonsillectomy performed two days previously, and had developed shortness of breath, cough, and absence of respiratory expansion of the right thorax. The temperature was 99.2 degrees Fahrenheit. With this history, the correct diagnosis of massive atelectasis, with a massive blocked exudate, was made. After bronchoscopic removal of the blood clot obstructing the right main bronchus, the film cleared in 24 hours, and the symptoms disappeared.

2. An anterior-posterior view of the maxilla was presented in a patient with all upper teeth extracted. A mass about one centimeter long and one-half centimeter wide, tapering at one end, lay on the floor of the antrum in the region of the canine fossa. There was no sign of enamel, and it was thought the area represented the root of a tooth in the antrum floor. However, the patient gave a history of generalized headaches, and there was no gum tenderness, and no pain on pressure over the point, nor any other localizing signs, so new films were taken. These showed clear, and the former finding was proved to have been the result of a defect in the film itself.

3. Flat anterior-posterior films, taken in a routine search for a focus of infection, were presented. A cyst filling the entire floor of the antrum was the first reading given. In the absence of any inflammation of the lining of the nose proper, no signs of allergy, and normal turbinates, it was thought advisable to take new plates. The lateral plates also requested showed that a low partition was present on the floor of the antrum, the broad side of the thin sheet of bone facing the front. The key to the problem was the lateral plate, so important in all abnormal sinus readings.

4. Lateral and stereoscopic films outlined a mass in the right middle lobe of this patient's lung. The most probable diagnosis was carcinoma or sarcoma. A careful history revealed that most of the symptoms dated from an attack of "influenza" seven months previously. With negative findings on bronchoscopy, it was decided the correct reading was unresolved pneumonia. Treatment of this condition produced a good result, and the film taken one month later was clear.

5. Without history, this film appeared to show a badly infected antrum, with greatly hypertrophied and cystic mucous membrane. Actually, a Caldwell-Luc had been performed two years previously. Irregular cloudiness extending from all walls and almost filling the antrum is of course the usual finding in these post-operative films.

6. The most probable diagnosis from the plate was a chronic nondraining empyema of the antrum, with slightly hypertrophied membrane. Lateral plates and further study showed that a complete forward facing partition was present, producing a double antrum.

7. A chronic empyema of the left sphenoid seemed present. A large polyp from the posterior tip of the left middle turbinate filled that side of the upper nasopharynx. After its removal, the film was clear.

8. Bilateral hypertrophy of the mucous membrane of the antra seemed plain. The patient was a full-blooded negro male, the heavy face of the maxilla over the antra in these patients making the sinuses appear unusually cloudy.

9. A carcinoma or sarcoma of the antrum was reported in the preliminary reading. Here again the history was all-important, changing the reading to that of an antrum chronically infected and filled with granulation tissue. The cavity following the extraction of an upper molar tooth on that side four months previously had never fully

Submitted Aungust 5, 1938.

The Author

● Dr. Hargett, Springfield, is a graduate of the University of Cincinnati College of Medicine, 1930; postgraduate study at the University of Vienna and University of London Hospitals; member of department of otolaryngology, Springfield City Hospital; formerly in the department of otolaryngology, Duke Hospital, Durham, N. C., resident and house surgeon, Episcopal Eye, Ear and Throat Hospital, Washington, D. C.

healed nor closed. A probe could be introduced into the antrum, proving the presence of a fistulous tract and perforation at the time of extraction.

10. The initial interpretation of the films read generalized pansinusitis, with chronic hypertrophy of all mucous membrane. Clinically, the patient had an acute coryza, the membrane being engorged and thickened by acute edema not only in the nose proper, but also in the sinuses themselves. Incidently, the importance and significance of the fact that practically all cases of acute coryza also have simultaneous coryza of the sinuses is often forgotten and neglected. Upon being informed of the clinical findings, the radiologist read the film as acute coryza. There is no other way of differentiating acute and chronic membrane thickness. The films cleared upon recovery from the coryza.

11. Lateral and stereoscopic views of this patient's chest were originally read as a right postoperative pneumonia with fluid filling the right chest. The patient was an adult with a temperature of 104.0 degrees Fahrenheit. She had had a local tonsillectomy two days previously. However, because of the rapidity of the onset and the extensiveness of the roentgenological findings, a bronchoscopic examination was done. A blood clot was found in the right main bronchus. It was removed and the chest cleared in 24 hours. The temperature also returned to normal in the same time. Thus with the aid of the bronchoscope a correct diagnosis of massive atelectasis was made, although there was little to suggest it in this case. The fever may have been due to sensitivity to and absorption of the altered proteins from the blood clot.

12. A chronic hyperplasia of the mucous membrane of the antrum was originally read. The roentgenogram had been taken in the prone position. The upright position showed a fluid level. Here one has an example of the value of the upright position in radiograms of the sinuses.

13. A chronic hyperplasia of the mucous membrane of the frontal sinus was originally read. The roentgenogram had been taken in the prone position. The upright position showed a fluid level. Here again changing the position pointed the way to correct diagnosis and correct treatment.

14. The most probable diagnosis seemed a chronic hyperplasia of the maxilla. Further study developed the fact that this was an early case of Leontiasis ossea. These pictures were taken with the cone and failed to show the characteristic other areas of hyperossification in the skull and mandible.

15. The plate was read as an acute mastoid with a sub-periosteal abscess, demanding immediate operation. Clinically, it was a case of acute posterior perichrondritis.

It is known that views of the same mastoid, especially with cholesteotoma, taken at different angles may be read differently by the same roentgenologist. In fact, mastoid readings are so unreliable that most otologists consider them entirely secondary, and often disregard them entirely. This is true even if the film is so clear as to make study under magnification possible.

FIRST NATIONAL BANK BUILDING.

Contraindication to Operative Delivery

A contraindication to operative delivery exists whenever there is no definite indication for active intervention. In other words, obstetric operations should not be performed solely for "convenience." Other and more positive contraindications are relatively uncommon, but nevertheless definite. In many pregnancies complicated by disease, such as chronic nephritis, acute toxemia of late pregnancy, cardiac disease, and other chronic conditions, the interruption of gestation is indicated, but can be accomplished safely only after medical therapy has made the patient a reasonable surgical risk. In general, it is wise to follow the dictum that when disease complicates pregnancy, the first indication is to treat the disease, attention to the pregnancy being reserved until later.

Obviously, also, contraindication may be based upon various other factors, such as deficient training, which makes an operator incompetent to perform the indicated procedure, and inadequate assistants, or surroundings unfavorable for the maintenance of aseptic technic or to providing necessary accessory therapeutic measures. Under such conditions, compromises must be made or the patient must be removed to an institution where the deficiencies can be supplied. If adequate obstetric care is to be accorded the mass of patients, these contraindications must be observed and the practitioner must abandon the old idea that he is by nature, if not by training, equipped to handle all emergencies, and that any surroundings are good enough for an obstetric operation. "Adequate" must be defined in terms of the best available within reasonable distance, and not in terms of the nineteenth century concept of adequacy.

By and large, then, the indications and contraindications for obstetric intervention are interrelated, in that what is not an acceptable indication is in reality a definite contraindication, and acceptable indications are those based upon the physician's clinical judgment founded upon his experience and the accumulated experience of others. When in doubt, it is wiser not to interfere with the natural forces of parturition.—E. D. Plass, M.D., Iowa City; Jr. Iowa S. Med. Soc., Vol. XXIII, No. 10, Oct., 1938.

A woman with a marked degree of frequency, all of whose urological examinations were negative, was relieved in a most unusual way. Noticing in a medical journal an article by an eye specialist, who claimed he had relieved many cases of frequency by refracting the patient's eyes, Doctor Sargeant thought he would try it on his patient. Only a moderately defective vision was found, but she obtained relief. He would have her leave her glasses off for a few days, and the frequency would always return.—James C. Sargeant, Milwaukee.

Scleroderma: Report of a Case Treated with Acetyl Beta Methyl Choline Chloride (Mecholyl) Iontophoresis

FAY A. LeFEVRE, M.D.

BECAUSE the etiology and pathogenesis of scleroderma are as yet not understood, the treatment of patients afflicted with this condition always presents a baffling and troublesome problem; and the results, in most instances, are far from satisfactory. At the present time, scleroderma is considered by most authorities to be related to changes in the peripheral vascular system, and many methods of treatment recently suggested have been directed toward improvement of the peripheral circulation, either by medical or surgical means. The results, except in occasional instances, have not been at all encouraging.

Within the last year, however, Duryee and Wright[1] have reported a series of cases treated by means of acetyl beta methyl choline chloride (mecholyl) iontophoresis in which the results were much more satisfactory than those usually reported. They studied 27 patients, most of whom had previously received many forms of treatment with little or no benefit. Of this group, nine patients displayed marked improvement after the local application of mecholyl by iontophoresis. In seven others, the change was less striking, but more than that produced by other methods. Eleven patients in the series showed slight or no improvement, but they were the ones who had received fewer treatments. All patients who had received 30 or more treatments showed marked or moderate improvement.

The use of various choline derivatives, especially acetyl beta methyl choline chloride (mecholyl) in the treatment of peripheral vascular diseases has been described previously in reports from the Vascular Clinic of the Department of Medicine of the New York Post-Graduate Medical School and Hospital of Columbia University[2, 3, 4]. In these studies it was learned that definite softening of the skin followed the prolonged application of this substance by iontophoresis, which seems to be the only method by which it is absorbed and utilized satisfactorily. Asbestos bandages saturated with a weak solution (0.5 per cent) of the drug, are placed over the affected area, and to these are applied the positive electrode of a galvanic battery. A pad well moistened with tap water applied firmly to the patient's back receives the negative electrode. About 20 milliamperes of current are allowed to flow for 20 to 30 minutes during each treatment. The absorption of the choline produces a marked vasodilatation at the site of the application, and sometimes, an area of rubor, accompanied by sweating, persists for several hours after the treatment.

Duryee and Wright[1] have noted that systemic reactions, characterized by sweating, increased salivation, a drop in blood pressure, and, at times, increased intestinal peristalsis, may occur when the absorption of choline is too great. These untoward reactions may be controlled by atropin. They also noted slight burns at the site of the negative electrode in a few patients with scleroderma, although they seldom occurred in the treatment of other conditions.

Since this method of treatment of scleroderma is new and has not been widely employed, it seems worthwhile to report a case of this type in which the application of acetyl beta methyl choline chloride by iontophoresis has produced satisfactory results.

Submitted September 14, 1938.

The Author

● Dr. LeFevre, Cleveland, is a graduate of Western Reserve University School of Medicine, 1931; associate member of the American College of Physicians; member American Heart Association; member of staff, visiting physician, department of medicine, Cleveland City Hospital; member of staff, assisting visiting physician, department of medicine, St. Luke's Hospital; demonstrator in medicine, Western Reserve University School of Medicine.

CASE REPORT

The patient, a housewife, aged 50 years, was first examined in the Vascular Clinic of St. Luke's Hospital on November 8, 1937. She had no complaints except those related to the thickening of the skin over the arms and legs. The condition had begun about a year and a half earlier, with pain in the fingers, and then stiffness of the joints and thickening of the skin. At first, only the hands and feet were involved, but the condition progressed gradually into the arms and legs, and finally the trunk was affected, but to a lesser degree. The thickening had increased steadily. There had been no swelling of the joints, but the rigidity of the skin made movements difficult and painful. Since the onset of the skin condition, the patient had been treated for arthritis, with vaccines, diathermy, etc.

The patient had had no serious illnesses or operations in the past, and there was no history

of smoking or exposure to cold. Neither the history nor the examination elicited any evidence of diabetes or tuberculosis.

The patient, who is small and delicate (height, 61 inches; weight, 100 pounds) presented the appearance characteristic of scleroderma. The forehead was smooth, with only a slight trace of wrinkling and the skin looked drawn and tight. The lips were thin, with the upper one drawn tightly over the teeth, although there were a few wrinkles at the corner of the mouth. The hair was thin, and the scalp dry and scaly. There was some atrophy of both the arms and legs.



Fig. 1. The appearance of the patient's hand before treatment. This was the maximum flexion possible.

Movements of the shoulder and elbow joints were slightly limited and the wrists and finger joints could scarcely be moved at all, but there was very slight limitation of motion in the legs. The fingers of both hands were in a semi-flexed position, and complete extension and flexion of the hand was impossible. (Figure 1). She could bring her thumb and index finger together only with great difficulty. The skin over the arms, legs, chest and shoulders was light brown, smooth and leathery, inelastic and apparently bound to the subcutaneous tissues. The condition was most pronounced in the wrist and hand, which had a glossy appearance. Thickening of the skin was evident in a few patches over the abdomen.

The physical examination revealed no other significant abnormalities. The heart was not enlarged and its sounds were regular and normal. The blood pressure was 120 systolic and 70 diastolic. The pulse rate was 68 per minute. There was some decrease in temperature of the hands and feet, which registered from 27 to 28 degrees centigrade. Additional studies showed that this was not due to spasticity. When the extremities were warmed, there was no activity of the sweat glands. The oscillometer readings at various levels of the arms and legs were normal.

Laboratory findings, including urinalysis, blood counts, Wassermann test, blood sugar, and basal metabolic rate were normal. The blood, calcium was 9.3 milligrams per cent, and the phosphorus, 3.0 milligrams per cent. Roentgenograms of the long bones showed no changes except in the hand and wrist, and in the feet, where there was considerable decalcification. Roentgenograms of the gastro-intestinal tract and of the chest showed nothing abnormal. The presence of gall stones was elicited by cholecystography, but these were causing no symptoms.

The diagnosis of scleroderma, uncomplicated by Raynaud's or other vascular disease, was made. Since the patient was seen just after the report of Duryee and Wright appeared, a trial with the new method of treatment which they had advocated, seemed warranted. Approximately 50 treatments with mecholyl iontophoresis, for approximately 30 minutes, two or three times a week, have been administered. The patient has also received a diet of high vitamin content. Small doses of thyroid extract were taken for a time, but the patient did not tolerate it well, so it was discontinued.

Under this regimen, there has been a dramatic change in the patient's condition. The process of thickening of the skin, which had been advancing steadily before treatment was initiated, has been completely checked, and the change in the skin over the arms, hands, legs and feet is quite remarkable. Whereas before treatment, the patient could scarcely get her thumb and forefinger together, she can now make almost a complete fist (Figure 2). The skin over the hands has become much looser and more elastic, and appears to be thinner. There has also been some improvement in the skin over the chest and face, even though it has been impossible to apply the treatment locally in these regions. There is a slight increase in the activity of the sweat glands. In addition, the patient has gained about 10 pounds in weight, and says that she feels much stronger. There has also been a great improvement in her mental outlook.

At no time did the treatments cause any systemic reaction, but after they had been administered for about four months, there was some local irritation of the skin on the legs, with slight inflammation and itching, which was controlled by 5 per cent boric ointment, containing ½ per cent phenol and menthol.

The treatments are being continued, and it is hoped that additional improvement will ensue. The complete disappearance of the condition is not likely, but what has already been accomplished is extremely worth while from the patient's standpoint. She feels so much better gen-



Fig. 2. The patient's hand after approximately fifty applications of acetyl beta methyl choline chloride (mecholyl) by iontophoresis. Note that she can flex her fingers much more than before treatment.

erally, and she can get around more easily, and is able to use her hands much more than formerly.

SUMMARY

In view of the good results from the use of mecholyl iontophoresis in cases of scleroderma reported by Duryee and Wright, a patient with this condition has been subjected to the same method of treatment. The scleroderma was advanced, involving the hands, arms, feet, legs, chest and face. About 50 applications of mecholyl by means of the galvanic current have checked the process, which had been advancing steadily for a year and a half previously, and

have produced much softening with consequent restoration of function in the parts affected. Before treatment, the skin over the hands and fingers was so rigid that the patient could not flex or extend the joints, while at present she can close her fist almost completely, and has good function in her hands.

9400 EUCLID AVENUE.

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Classification of Low Back Pain

1. Congenital developmental abnormalities:
   a. Spondylolisthesis.
   b. Sacralization of the fifth lumbar vertebra.
   c. Posterior displacement of the fifth lumbar vertebra.
2. Traumatic disturbances:
   a. Sacroiliac sprain.
   b. Lumbosacral sprain.
   c. Sprain of the spinal muscles or ligaments.
   d. Fracture of the vertebral body.
   e. Fracture of transverse and spinous processes.
   f. Fracture of the sacrum.
   g. Fracture of the coccyx.
3. Postural defects or poor body mechanics:
   a. Deflection of body weight: 1, lateral deviation; 2, anterioposterior deviation; 3, asthenic and sthenic types.
4. Rheumatic and arthritic manifestations:
   a. Rheumatic myositis, fascitis.
   b. Osteoarthritis.
5. A combination of the above mentioned causes.
6. Other miscellaneous causes.
   a. Metastatic conditions.
   b. Reflex from pelvic or abdominal pathological conditions.

Although there are numerous causes of low back pain, nevertheless the foregoing outline gives those we frequently encounter. Most of these patients would be symptom-free were it not for a superimposed development of trauma or static trauma from poor posture. Goldthwaite has stated that 90 per cent of the low back pain is due to postural defects.—J. I. Epstein, M.D., Brooklyn, N. Y.; Med. Record, Vol. 148, No. 8, Oct. 19, 1938.

A Thought on Pulmonary Embolus

I have often wondered whether any statistics were available on the relative frequency of Pulmonary Embolus among patients who did, and those who did not, have the advantage of special nursing care.

While cardiac disease-infection and biochemical changes in the blood are important elements, the main factor in the etiology of Pulmonary Embolus is the slowing of the circulation.

The usual routine in special nursing care tends to curtail the patients' movements to a minimum —pillows are placed under the knees to jacknife the pelvis, and the body and arms are immobilized as far as possible. If Nature attempts to elevate the blood pressure by the introduction of pain or if the patient groans or moves about, he is immediately "snowed under" with morphine. Everything is done to slow the circulation to a minimum and the patient is made as comfortable as possible —for a sudden exit with a Pulmonary Embolus.

On the other hand, the ward patient who roundly curses the service—or lack of service; who bemoans the stony mattress which forces him to turn frequently, seeking comfort; who becomes choleric every time he tells you how long he had to wait for a bed-pan or urinal, is unwittingly doing everything that is humanly possible to send his red blood corpuscles scurrying past all danger points, thus eliminating the possibility of Pulmonary Embolus.—Farrell T. Gallagher, M.D., Lakewood, Ohio.

Prolonged Catheterization

A blacksmith, ninety years of age, who had learned his trade at the age of eleven, and who did not retire until he was eighty-seven, attributed much of his good health to the use of tobacco: he had chewed since he was four years of age, and had smoked continuously since he was a young man. For thirty-five years, he had catheterized himself three to seven times daily—approximately sixty thousand times—until suddenly one day, a five-inch piece of catheter broke off in the bladder. His technique was also interesting: he applied lubricating jelly with his unwashed hand, and usually washed the catheter in soap and water after using it. He had only a mild degree of cystitis, was very active, and in excellent health.—Howard L. Tolson, Cumberland, Maryland.

There is an old saying that interest does not bind men together; interest separates men; there is only one thing that can effectively bind people, and that is a common devotion.—Harvey Cushing.

Case Record Presenting Clinical Problems

The Importance of a History of Previous Medication and the Dangers of Vaginal Douching

H. L. REINHART, M.D.

H. P. I.—A white female, 29 years old, was admitted to the hospital complaining of nausea, vomiting and bleeding gums. Five days before admission she took a vaginal douche of corrosive sublimate for persistent leucorrhea. At first she said the douche contained 1 grain of corrosive sublimate to 4 ounces of water; later she stated that it contained 2 teaspoonfuls of the powdered $HgCl_2$ to one cup of water. Following the douche her external genitalia became sore and swollen. Two or three hours later she was nauseated and vomited a "green bitter fluid." Although she took nothing by mouth but fluids she was unable to retain any. The following day her mouth was very sore and she noticed many small, yellowish ulcers under her tongue, in the roof of her mouth and at the gingival margins of her teeth. Excessive salivation, dysphagia, asthenia and obliguria developed. A diarrhea characterized by numerous green fluid stools, and increasing severity of her other symptoms caused her to call a physician. She did not tell the physician of the douche she had taken 48 hours previously. He gave her an "injection in the hip, and prescribed mouth washes of peroxide." The following day her gums were bleeding, she began "menstruating", and passed practically no urine during the third or fourth days. On the fifth day she was advised by her physician to go to the hospital. At this time her symptoms were nausea, vomiting, salivation, dysphagia, angina, gingival and menstrual bleeding and particularly asthenia and oliguria.

Past History: She states that her general health has always been good. She has had no significant illness and no surgery. Her catamenia has never been remarkable. She has had a leucorrhea intermittently for seven years. During nine years of married life she has had one child, normally delivered, which died at five months of age.

Physical Examination: The patient is an adult female about 29 years of age, 5 feet and 2 inches in height and weighing 103 pounds. The skin is warm, coarse, dry and dusky. The mucous membranes, ears and nails are cyanotic. Enophthalmos and a slight lateral nystagmus are present. She has a foul breath, ulcerated buccal mucosa, swollen cyanotic lips, raw ulcerated gingivae and extensive dental caries. Inspection of the tongue reveals a thick gray, irregular coating which has apparently been desquamated in some areas. The tonsils, uvula, and pharynx are edematous and red. The soft palate is the seat of a large ulceration. There is no cervical lymphadenopathy. The heart and lungs present no abnormal physical signs. There is no abdominal rigidity or tenderness. The kidneys are not palpable. The neurological examination reveals nystagmus, tinnitus, dysphagia and a positive Babinski. Muscle tonus and reflexes are somewhat diminished. Blood pressure 140/90.

Course in Hospital: Her general course was rapidly downhill during the four days hospitalization. Her temperature ranged from 103° at admission to 96°, and was subnormal after the day of her admission. Pulse rate was 100/minute and respiratory rate 20/minute. Her urinary output was 60 cc. during the first 24 hours, 350 cc. during the second day, and 150 cc. during the third day. Numerous stools contained shreds of bloody mucus, dark material resembling old blood, and occasionally, bright red blood. Intermittent vomiting continued. She complained of soreness around the anus and also of extreme weakness. Her blood pressure was 78/44 the day of her death. Several hours before death the patient complained of generalized pains and her hands became spasticly flexed. She sank into coma, became cyanotic, developed an irregular pulse and expired.

Blood Count: Hb. 14 grams; R.B.C. 4,415,000; W.B.C. 8,680; polymorphonuclear cells 77 per cent, segmented 42 per cent, bands 35 per cent; lymphocytes 18 per cent; monocytes 3 per cent; eosinophiles 1 per cent; basophiles 1 per cent.

Serology: Wassermann, positive. Kahn, positive. Urinalysis: Acid reaction; 100 mgm. albumin; 5 R.B.C./HPF; 10 W.B.C./HPF; 5 cellular casts/HPF. P.S.P.—no dye excretion. Blood chemistry; non-protein nitrogen,—130.4 mg.; urea nitrogen,—117.4 mg. to 149.2 mg.; creatinine,—13.1 mg.; serum albumin,—4.2 per cent; serum globulin,—2.66 per cent.

Clinical diagnosis: Mercuric Chloride Poisoning from vaginal douche; neither homicidal nor suicidal.

Dr. Reinhart:

The available clinical and laboratory evidence justifies the presumptive diagnosis of mercury poisoning. Demonstration of mercury in the urine, saliva or stools would have provided factual evidence. Numerous cases of poisoning, occasionally with fatal termination, have been reported from vaginal douches with mercuric chloride. The use of solutions of mercuric chloride in the treatment of syphilis, for skin and wound antisepsis and for skin infestations such as ringworm has been rather frequently attended by clinical manifestations of mercury poisoning. When any form of mercury is employed for the treatment of a disease, careful observation of the patient for evidence of salivation, diarrhea, etc., and of the urine for albumin, casts and red blood cells is an accepted routine procedure. The positive evidence which may be obtained from

This is the thirty-fifth of a series of cases to be published under the heading, "Case Record Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

such investigations is also accepted as diagnostic of mercury poisoning; but the factual evidence depends upon the demonstration of mercury in the saliva, urine, feces or tissues. Qualitative and quantitative clinical laboratory investigations of blood and urine for the determination of medicinal and other exogenous poisons are exceedingly infrequent and bespeak a lowering of our index of suspicion of the etiology of many obscure cases. This is particularly true with sedatives such as the bromides and barbiturates and analgesics such as amidopyrine, and numerous recently introduced therapeutic agents which are being dispensed over the drug counters.

We regret that at least a qualitative test of saliva or urine for mercury was not done in this case, particularly because of the unexpected pathology revealed by the autopsy. The anatomic diagnosis was, 1) chronic caseous bilateral adrenal tuberculosis, 2) Addisonian type of pigmentation of skin, 3) chronic caseous sub-apical bilateral pulmonary tuberculosis, 4) chronic caseous tuberculosis mediastinal lymphadenitis, 5) acute hemorrhagic ileitis and colitis, 6) toxic nephrosis, 7) acute pseudo-membraneous inflammation of the vagina. The general anatomical picture was that of Addison's disease. The pseudo-membraneous inflammation of the vagina was the only lesion distinctly suggestive of mercury poisoning.

It is not surprising that the pigmentation of the skin and the pulmonary tuberculosis were overlooked in an individual as acutely ill as this patient. The clinical history and symptomatology were those of mercury poisoning and the patient was too sick to be bothered with a minute extended investigation. If we now review the case with all facts available we see clearly how closely the symptoms of an acute crises of Addison's disease may simulate those of mercuric chloride poisoning. The asthenia of Addison's disease is often associated with low blood pressure, nausea, vomiting, dehydration, oliguria, anuria, high blood urea nitrogen, diarrhea of bloody stools, and symptoms of shock, or uremia and convulsions. The bleeding from the gums and intestinal tract in Addison's disease may be associated with anemia and vitamin C deficiency.

One of the outstanding effects of a deficiency of adrenal cortical function as occurs in Addison's disease, is a marked lowering of resistance to toxemia. If, in this case, we assume that an acute crises of Addison's disease was precipitated by a sub-lethal mercuric chloride poisoning, we have provided an explanation for the absence of pathology characterizing mercury poisoning. Such an explanation is theoretically and practically consistent with the clinical and pathological evidence available.

Rollin R. Durant:

The diagnosis of Addison's disease in a case presenting itself as this one has rests principally on two points. First there must be the realization that while Addison's disease is not common, it can no longer be considered a rare disease. Second and more important is the inadequacy of a history obtained from a patient who is acutely ill. If relatives or friends of the patient had been questioned a history of progressive weakness and increasing pigmentation of the skin and hair surely would have been obtained. Clinical tests for adrenal insufficiency should be withheld during the acute crises of Addison's disease, since, with the exception of a therapeutic test, their value depends on aggravating the condition of the patient. Consideration of the following differential points might have aroused a suspicion of the true nature of the disease. Although the pigmentation of the skin noted at autopsy might have followed the extensive, chronic pelvic disease, its distribution would have been more limited and especially marked around the eyes. If due to adrenal disease in a light complexioned individual the pigment would have given a dirty gray color to the skin, usually appearing first on the forehead. In a brunette the typical bronzing effect might have been seen. While the general distribution and shade of the pigment is commonly stressed, it is my impression that rapid development of the small, freckle-like, deeply pigmented spots on both exposed and covered surfaces of the body is of equal if not greater significance. Also there may be a darkening of pre-existing freckles.

The bronze effect frequently includes the hair and becomes more marked whether the general condition improves or not. In my experience this sign has been observed only once by the patient himself but is frequently observed by relatives or friends and again emphasizes the value of objective observations in the history of the case in addition to that supplied by the patient.

Vaginal discharge, for which this patient used the bichloride douche, has been observed in cases of uncomplicated Addison's disease.

Inasmuch as the diagnosis of Addison's disease in uncomplicated cases is so frequently missed, until a crisis develops or the case comes to autopsy, it is extremely unlikely that anyone would have made the diagnosis under the conditions of the present case.

Anuria, after a hysterectomy, was treated with diuretics for four days, but no urine. Cystoscopy, even with indigo carmin, failed to reveal any ureters. There were no signs of uremia, but on the twelfth day, when the surgeon was about to interfere operatively, and when he was undoubtedly about crazy, one more diuretic was tried, namely, salygram. That night, 4,000 cubic centimeters of urine passed. Believe-It-Or-Not, the patient was at no time very uncomfortable.—Michaele V. Iovine, New York.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

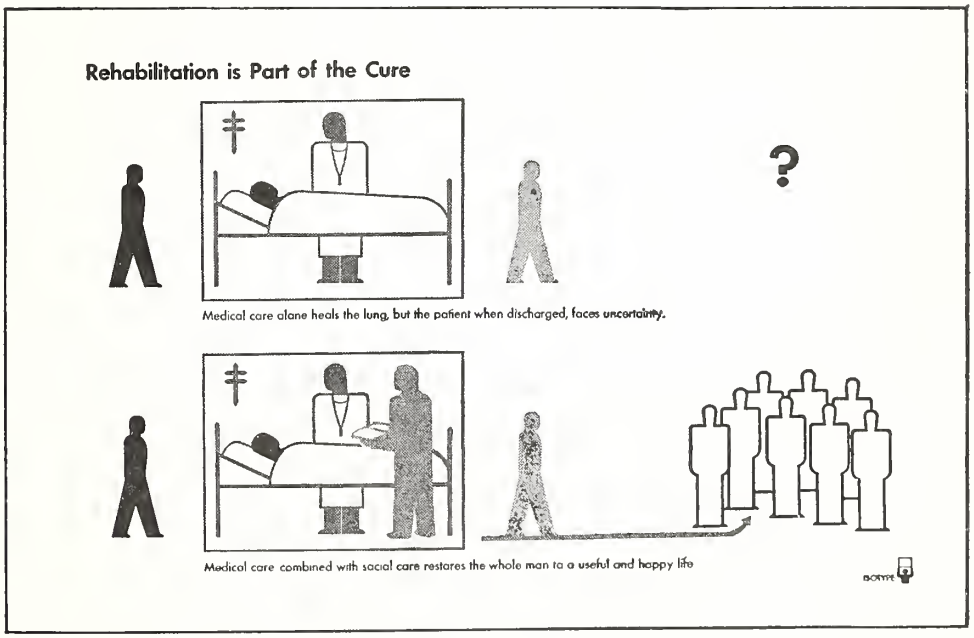
COUNSELING THE TUBERCULOSIS PATIENT FOR SUITABLE EMPLOYMENT

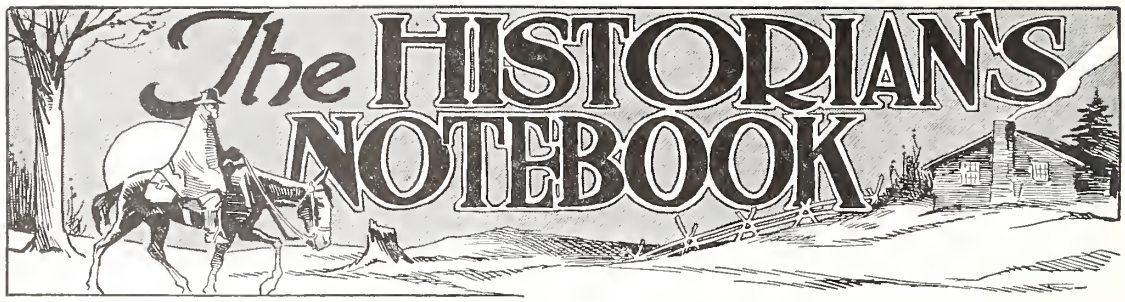
THE California Bureau of Vocational Rehabilitation has at this time a live roll of 659 tuberculosis patients and ex-patients. Each year since 1933 has seen an increase in the number enrolled. During this time 758 persons (31 per cent) out of a total of 2,418 in training have been rehabilitated, which means, placed in a suitable job with a fair salary, and each year the proportion of those rehabilitated has increased.

How permanent is the rehabilitation of ex-patients? Of 209 individuals rehabilitated in Los Angeles County during the period of 1928 to 1936, 155 (74 per cent) are still employed; whereas in a control group of 98 individuals discharged from sanatoria who had not received training, the number still employed is 34 (34 per cent). Not so favorable was the discovery that about 20 per cent of the rehabilitated individuals have had relapses of their disease and eight (4 per cent) died, though the work was not the cause of death.

Vocational training is seldom a part of the sanatorium program. We believe that selected reading activities, adult education, and occupational therapy fit better into the sanatorium situation, with as much prevocational emphasis as may be desirable in individual cases. Nevertheless, training is occasionally provided for selected patients whose condition is at least quiescent and improving to indicate discharge within a reasonable time, and assuming that training facilities are or can be made available. Approximately 8 per cent of our tuberculosis cases start their training before discharge, either in one of the five sanatorium commercial classes conducted by the Bureau, or by means of correspondence courses, or through employment training in sanatorium jobs. The advantages of this early start are improved morale, service as a hardening process, shortening of period of continued training after discharge and often either immediate or at least quicker placement. Training is always in accordance with medical advice, starting with a few minutes daily and increasing as the patient's condition permits.

Training is usually provided after discharge and after a period of adjustment to home conditions. Each training program is made to fit the particular needs, interests, and convenience of the individual trainee to the greatest extent possible; never do we try to fit the trainee into a cut-and-dried uniform program.—H. D. Hicker, Transactions of the National Tuberculosis Assn., 1938.





Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Phlebotomy Lancet

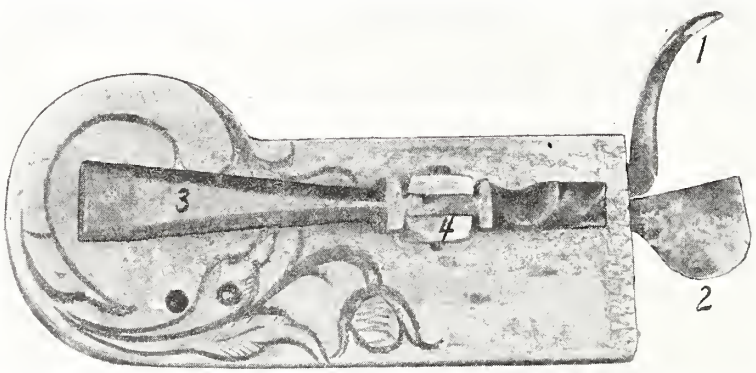
DONALD D. SHIRA, M.D.

PROBABLY few present-day physicians would recognize the somewhat weird looking instrument reproduced below. It is a phlebotomy lancet, a rather refined, automatic descendent of the crude scalpel, if such it might be called, used by the barber blood-letters of long ago. It is the streamline model most popular with the zealous devotees of the gentle art of exsanguination in the early part of the nineteenth century. Since the majority of mechanical contraptions in those days were manufactured in Europe, most of the lancets were imported from Germany.

The practice of blood-letting dates back to antiquity but for quite sometime prior to the nineteenth century it had lost caste with the medical profession. In 1793 a yellow fever scourge struck Philadelphia, taking an appalling toll in lives. Dr. Benjamin Rush, finding all ordinary methods of treatment useless, or worse, in sheer desperation resorted to bleeding his patients. He waxed enthusiastic about the results obtained, but whether the method was really effective, or whether it was merely a case where the wish was father to the thought, is problematical. At any rate blood-letting once more became quite fashionable, and for a half century or more after Rush all but dominated medical practice. In fact, so universal and indispensable was its use, that in many communities to which medical aid was not readily available, certain laymen became quite adept at the art and would often "pinch hit" for the doctor. Patients were bled not only once but oftimes repeatedly, nor was the utmost discrimination always used in the selection of patients. The phrase "bled to syncope" is encountered with monotonous regularity in descriptions of early-day treatment. In

The Author

• Dr. Shira, Columbus, is a graduate of Ohio State University College of Medicine, 1914; former health commissioner of Akron and Summit County; assistant secretary Ohio Public Health Association.



PHLEBOTOMY LANCET

these days of transfusions and knowledge of blood functions, one cannot help wondering if, in some cases, outright decapitation could have been much more disastrous to the patient.

The mechanism of the lancet depicted herewith is enclosed in a brass case artistically decorated with engraved furbelows. The curved projection (1) is the continuation of a heavy coiled spring. When pushed up it catches on a ratchet. A razor-sharp lancet (2), responding to the pressure of a light spring placed under it, follows the handle (1) as it goes up. A lever (3) acting on fulcrum (4) when pressed down, releases handle (1) which in turn strikes the lancet down with lightning-like speed. The modus operandi was to put a tourniquet on the arm, place the lancet over and parallel with the vein and press the release lever. Quick as an adder's thrust the lancet flashed into the vein making a very neat incision indeed. Blood flowed copiously, and not infrequently the patient passed out in a dead faint.

Against his better impulses one is inclined to marvel not at the number who died, but at the number who survived. Only the Book of Life, perhaps, could reveal the multitudes that, as a result of blood-letting and the concomitant administration of gargantuan doses of that sine qua non, calomel, were uncermoniously and without the benefit of clergy ushered into another and better world.

However, prone as we may be to smile patronizingly at the deficiencies of departed Aesculapians, it might well give us pause to reflect that "we have not yet arrived at perfection. Other improvements will doubtless follow; and if any . . . shall be disposed to say.

'We think our fathers fools, so wise we grow',
let them with pleasure anticipate the day when
'Our wiser sons no doubt, will think us so!' "[1]

1. Peter Allen, M.D. Trans. Ohio State Med. Soc. 1857, p. 34.

Essay Award Announced

The Mississippi Valley Medical Society offers a cash prize of $100, a gold medal and certificate of award for the best unpublished essay on a subject of interest and practical value to the general practitioner of medicine. Entrants must be members of the American Medical Association. The winner will be invited to present his paper before the next annual meeting of the Society at Burlington, Iowa, September 27-29, 1939. Contributions must not exceed 5,000 words, must be submitted in five copies and must be received not later than May 1, 1939. Further details may be secured from Dr. Harold Swanberg, secretary, Mississippi Valley Medical Society, 209-224 W. C. U. Building, Quincy, Ill.

The Committee on Medical History and Archives of the Ohio State Archaeological and Historical Society will welcome anything relating to the practice of medicine, including dentistry, pharmacy, nursing and like activities, books, reprints, transactions, instruments, prescriptions, account books, saddle bags, instrument cases, diplomas, letters, diaries, genealogies and photographs.

Contributions should be sent to Jonathan Forman, M.D., chairman of the Committee, care of the Ohio State Archaeological and Historical Society, Museum, Ohio State University Campus, North High St., Columbus, Ohio. Such contributions will be properly and permanently preserved in the Museum of the Society.

Dr. Mont R. Reid Honored

Dr. Mont R. Reid, professor of surgery, University of Cincinnati College of Medicine, has been named a member of the National Advisory Cancer Council, Washington, D. C., for a three-year term. The Council shares with Surgeon General Thomas Parran of the United States Public Health Service responsibility for the policies and activities of the National Cancer Institute Act passed at the last session of the U. S. Congress, for the purpose of fostering research in the field of cancer.

Other members of the Cancer Council are: Dr. James B. Murphy, chief of the Cancer Research Division of the Rockefeller Institute, New York; President James B. Conant, Harvard University, authority on chemistry; Dr. Arthur H. Compton, University of Chicago, a Nobel prize-winner in physics; Dr. C. C. Little, managing director of the American Society for the Control of Cancer, and Dr. Ludvig Hektoen, Chicago, former member of the John McCormick Institute for Infectious Diseases, who is serving as executive director of the National Advisory Cancer Council.

Pathologists To Meet, January 28

The midwinter meeting of the Ohio Society of Clinical and Laboratory Diagnosis will be held in the Department of Pathology, Ohio State University College of Medicine, Columbus, Saturday, January 28, beginning at 2:00 P.M.

The following program has been arranged: "The Importance of Blood Groups for the Determination of Paternity", by Dr. L. H. Snyder; "The Increased Value and Importance of the Bone Marrow Biopsy", by Dr. C. A. Doan; "Bacteriology of Food Poisoning", by Dr. O. C. Woolpert, and "The Differentiating Characteristics of the Lymphoid Elements in Lymphoid Reactions", by Dr. B. K. Wiseman. Following these 20 minute talks, a pathological conference with demonstration of gross and microscopical material will be held. There will be the usual business meeting following the conference.

Proceedings of The Council

Expansion in Program and Activities of Association Approved; Public Relations Campaign Recommended; Budget Adopted; Plans for 1939 Annual Meeting Reviewed at Meetings, December 3 and 4.

A REGULAR meeting of The Council of the Ohio State Medical Association was held in the State Headquarters Office, Columbus, on Saturday evening, December 3, and Sunday, December 4, 1938. The following were present: President Hein, President-Elect Smith, Treasurer Beer, Councilors Schriver, Hogue, Klotz, McNamee, Skipp, Brush, Seiler and Sherburne; Dr. Forman, Editor of *The Journal;* Dr. J. H. J. Upham, Dr. H. M. Platter, Executive Secretary Nelson and Assistant Executive Secretary Saville.

The Council expressed regret upon learning of the illness of Dr. Kirkland, Councilor of the Seventh District, and wished him a speedy recovery.

Dr. Hein, the President, announced that he had received a communication from Dr. Charles W. Stone, Cleveland, resigning as chairman of the Committee on Public Relations and Economics because of illness, but expressing a willingness to continue as a member of the committee. Dr. Hein suggested that Dr. Stone's resignation as chairman be accepted by The Council and that Dr. Donald B. Lowe, Akron, a member of the committee, be requested to serve as chairman until the 1939 Annual Meeting. The recommendation of the President was concurred in by The Council.

Minutes of Council meetings held on July 31 and October 1, 1938, were approved as published in *The Journal*, on **motion** by Dr. Sherburne, seconded by Dr. Brush and **carried.**

Membership Statistics—It was announced that the total membership of the State Association, as of December 3, 1938, was 6,115—a new all-time record—in comparison to 5,894 on the same date a year ago, and to 5,945 as of December 31, 1937.

Pamphlet Authorized—on **motion** by Dr. Klotz, seconded by Dr. McNamee and **carried**, the Executive Secretary was instructed to prepare a pamphlet on the question of socialized medicine and to distribute a copy of the pamphlet to each member with his 1939 membership card. It was suggested that the pamphlet be in the form of an outline for an address which any member might make before a lay group.

Reports of Councilors—Individual members of The Council reported on activities in and visits to societies in their respective districts. Councilors stated that the membership, generally, was well pleased with the pre-election activities carried on by the State Association, and that there is considerable interest in the various counties in the Regional Postgraduate Lectures.

LEGISLATIVE DEVELOPMENTS

Work of Committee—The Executive Secretary reported on follow-up work which is being carried on by the Sub-Committee on Legislation, such as contacting those elected to the Ohio General Assembly and the next Congress, as well as those elected to state administrative offices. Setup of the new General Assembly was discussed, as well as anticipated legislative proposals.

Bar Association Proposal—A proposal being sponsored by the Cleveland Bar Association, and which may be introduced at the next session of the General Assembly, was discussed by The Council at the request of the Cleveland Academy of Medicine and the Cleveland Bar Association. The proposal would provide a more effective method of incarcerating mentally defective criminals, setting up a provision for committing them to a psychiatric institution rather than to a penal institution. On **motion** by Dr. Sherburne, seconded by Dr. McNamee and **carried**, the question was referred to the Committee on Public Relations and Economics for study and a subsequent report.

Conference with Osteopaths—A report from the Committee on Public Relations and Economics relative to a conference with a special committee of the Ohio Society of Osteopathic Physicians and Surgeons, held at the request of that society on October 16, 1938, was presented. At that conference it was agreed that the osteopathic committee would prepare a specific legislative proposal which would be considered at a later date by the Committee on Public Relations and Economics. The Executive Secretary reported that the proposal was received at the State Headquarters Office on Saturday, December 3, too late to be considered by the committee preceding the Council meeting of this week-end, and that, for that reason, the committee had no report on the proposal to present to The Council at this time. On **motion** by Dr. Smith, seconded by Dr. Seiler and **carried**, the proposal was referred to the Committee on Public Relations and Economics for consideration and a subsequent report to The Council.

Health Law Changes—The following report from the Committee on Public Relations and Eco-

nomics was submitted and, on **motion** by Dr. Klotz, seconded by Dr. Smith and **carried**, was **approved**:

"The Committee on Public Relations and Economics has given careful study to proposed amendments to the statutes affecting state and local departments of health, sponsored by the Ohio Public Health Association. Several conferences with sponsors of the proposals have been held and drafts of the proposals have been analyzed carefully by individual members of the committee.

"The committee believes that the proposals have considerable merit. Therefore, it recommends to The Council that The Council endorse, in principle, the provisions incorporated in the revised draft of November 14, 1938, and suggests that The Council authorize the Committee on Public Relations and Economics to continue its conferences with sponsors of the proposals for the purpose of perfecting the wording of the various sections."

The amendments referred to in the foregoing report, and which were approved in principle by The Council, would provide for the following changes in the present public health laws:

1. The Director of Health would be appointed by the Governor, with the advice and consent of the Senate, from a list of not less than five qualified persons recommended by the Public Health Council.

2. The Director must be a graduate of an accredited medical college, licensed to practice medicine in Ohio, with at least five years' experience in some phase of medical practice, and an additional five years' experience in full-time public health administration.

3. The term of office of the Director of Health would be indeterminate, and he may be removed only for incompetence or gross neglect of duty. The Director or Assistant Director may be removed for cause by the Public Health Council or the Governor.

4. Size of the Public Health Council would be increased from four to six. At least three of the members must be physicians licensed to practice medicine in Ohio. The Director shall be a member of the council ex-officio. No two members of the council shall be from the same congressional district. The council is given the same and some additional administrative and legislative responsibilities.

5. The Assistant Director would be appointed by the Director, and would hold office during the pleasure of the Director.

6. The Public Health Council would be given the right to establish minimum qualification standards for local health commissioners, nurses and other technical personnel, and to prescribe minimum standards of performance for local health departments. The council would have the right to allocate to local health departments, who meet such standards, enabling funds in addition to the regular district subsidy allotted to all health districts. In other words, local departments meeting the standards would be in line for a "bonus" from any rotary fund which might be appropriated for the use of the state department.

Situation in Washington—A communication from Dr. Olin West, Secretary of the American Medical Association, relating to a conference in Washington on October 30 of representatives of the A.M.A. and representatives of the Interdepartmental Committee, which is sponsoring the National Health Program, was read for the information of The Council.

1939 ANNUAL MEETING

Tentative Program—Dr. Sherburne reported for the Committee on Scientific Work, reviewing the tentative setup and program for the 1939 Annual Meeting in Toledo, May 3 and 4, which was adopted by the committee at its meeting on October 30, 1938 (see pages 1377-1378 of the December issue of *The Ohio State Medical Journal*). After a general discussion, on **motion** by Dr. Smith, seconded by Dr. Seiler and **carried**, The Council approved the setup and program and congratulated the committee on its excellent work.

Local Chairman—On **motion** by Dr. Sherburne, seconded by Dr. Seiler and **carried**. The Council concurred in the recommendation of the Committee on Scientific Work that Dr. A. A. Brindley, Toledo, be requested to serve as general chairman of Local Committees on Arrangements.

Honored Guest—On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, The Council extended an invitation to Dr. Rock Sleyster of Milwaukee, President-Elect of the American Medical Association, to be the guest of the Association on Thursday, May 4, the second day of the 1939 Annual Meeting at Toledo; and instructed the Executive Secretary to request Dr. Sleyster to address the Second Session of the House of Delegates, scheduled for May 4, and to remain for the Annual Banquet on the evening of that day as the guest of The Council.

Physiotherapy Meeting — A communication from the Ohio Chapter, American Physiotherapy Association, expressing a desire to hold its annual meeting at the same time and place as that of the Ohio State Medical Association, and requesting The Council's approval of such an arrangement, was considered. On **motion** by Dr. Klotz, seconded by Dr. Hogue and **carried**, The Council approved the proposed arrangement, providing the Physiotherapy Association would handle all arrangements for its meeting and that such arrangements would not conflict in any way with the Annual Meeting of the State Medical Association. The Executive Secretary was instructed to assist representatives of the Physiotherapy Association in obtaining a suitable meeting place for that society.

POOR RELIEF ACTIVITIES

The following report from the Committee on Poor Relief was submitted on behalf of Dr. Walter K. Stewart, Youngstown, chairman of that committee, and, on **motion** by Dr. Skipp, seconded by Dr. Beer and **carried**, was **approved**:

"On authorization of the Special Committee on Poor Relief, the chairman begs to submit this report for the information and consideration of The Council.

"The committee has held two all-day meetings in Columbus—September 18 and November 6. In addition, considerable field work has been done by individual members of the committee and a number of important conferences have been held with representatives of other groups and organizations directly interested in the question of poor relief.

"At its first meeting on September 18 the committee started its work by definitely classifying its objectives. The following objectives were agreed to:

"A—To study ways and means of establishing a medical relief program for Ohio which will provide adequate medical care for individuals requiring relief at public expense.

"B—So far as possible, to formulate and sponsor a medical relief program which will provide adequate compensation to physicians rendering medical service.

"In discussing the foregoing principal objectives, the committee necessarily had to take into consideration such questions as (1) what should be the proper organization for administering relief; (2) how should funds be obtained; (3) the matter of centralization or decentralization of relief administration; (4) what other organization should be consulted for advice and information; (5) what is the proper procedure in efforts to solve this problem; (6) what should be the proper procedure in the drafting of various recommendations which may be finally approved by The Council; (7) how can these recommendations be incorporated in proposed legislation for revamping the entire Ohio relief program, etc.?

"Before the first meeting on September 18, a communication was sent to the secretaries of all county medical societies containing requests for certain factual data. There was a splendid response to the questions. The questions asked and the answers, which represent the majority viewpoint of the county medical societies answering, follow:

"(1) Are the physicians in your county being adequately paid for the care of needy sick? If so, please describe local setup or setups. If not, please state why, and offer suggestions as to how improvements in your county can be brought about.

"Ans. The state-wide answer to this question was—the physicians are not being adequately paid for the care of the needy sick.

"(2) Would the physicians in your county prefer to have relief, including medical care, administered locally by municipalities, townships and the county, or, would they prefer a centralization of relief administration on a county-wide basis?

"Ans. The concensus over the state was the centralization of relief on a county-wide basis.

"(3) If relief is to be administered on a county-wide basis what agency should be assigned the administrative responsibility? If possible, outline briefly what type of centralized relief administration would be best suited to your county.

"Ans. There was a definite combined desire on the part of the various counties that relief money should be allocated to each county through the county commissioners. A few counties felt this money should be 'ear-marked' for medical relief. There seemed to be only a hazy conception of the meaning of this question so far as to the procedure of how this money is to be spent.

"(4) How should the fees for the care of needy sick be determined?

"Ans. All those counties which sent an answer to this question felt the Industrial Commission Fee Schedule would be satisfactory for this program.

"(5) What changes if any have you to suggest in the present methods of providing medical care of the poor in your county?

"Ans. This question brought out many helpful suggestions to the committee but they were too varied and complicated to be included in this report.

"Obviously, the question of fees played a prominent part in the discussions at both meetings of the committee. Up to the present time, the committee has reached no definite agreement on this question. As a matter of fact, the viewpoints of members of the committee vary regarding the matter of fees.

"Some members of the committee believe that a state-wide fee schedule for this type of medical service should be established. They argue that: First, a state-wide fee schedule would result in a more balanced distribution of new practitioners of medicine and would encourage the young physician to seek a location in areas where medical care of the indigent commanded better fees; secondly, that there would be less likelihood of politicians bargaining for low fees if there were to be established a recognized, standard fee schedule; thirdly, that there would be more 'teeth' in the whole program if a fee schedule were to be established and written into the law.

"Other members of the committee have expressed disagreement. They have pointed out that it probably would be unwise, as well as impossible, to write a standardized fee schedule into the poor relief statutes. Such members believe a fee schedule should be part of the administrative machinery which would be set up after legislation is enacted. For example, after an administrative organization is set up in accordance with the revised statutes, the question of arriving at adequate and proper fees would naturally follow. It was pointed out that the fee schedule for industrial injuries is not a part of the Workmen's Compensation Act but merely an administrative order. The danger of a state-wide fee schedule, in the opinion of such members, is that the fees for this type of care might be accepted as standard fees for private practice, and that regular fees vary in different parts of the state, making it difficult to formulate a state-wide fee schedule which would be satisfactory in all parts of the state. The chairman of the committee agrees with those members who are opposed to a state-wide fee schedule as he believes that the medical profession would be in a better position to bargain for fees with local relief administrations through representatives of the profession on advisory boards, which could be established to assist in administration of the medical relief program.

"Various sub-committees of the committee have held conferences with representatives of the Ohio State Dental Society, Ohio State Pharmaceutical Association, Ohio State Nurses' Association, and the Ohio Hospital Association, and with representatives of various welfare groups equally interested in revising the poor relief setup in the

state. Such organizations have unofficially offered their active cooperation and help.

"Also, the committee is contemplating conferences with representatives of state medical societies in neighboring states for the purpose of exchanging information and suggestions. The committee believes that it would be helpful if groups of states had similar medical relief programs.

"At its discussions, the committee decided that it would be exceedingly helpful if each county medical society would designate a standing committee, or establish a new committee, to represent the society on poor relief questions. It is felt that such committees could make contacts with local relief officials, especially county commissioners, thereby laying the ground work for contacts and conferences at a later date when proposed legislation on this question will be before the Ohio General Assembly. Also, it is felt that such committees in each county will give the poor relief committee an agency through which it can work and through which it can contact members of the State Association on matters of procedure and policy.

"At this time the Poor Relief Committee is not prepared to present a bill or several bills for consideration and action by The Council. However, it does offer the following recommendations and requests their adoption by The Council so that the committee will have a definite policy to guide it in its future deliberations:

"(1) That the Ohio State Medical Association favors the centralization of local relief administration on a county-wide basis for the purpose of simplifying relief administration within a county and eliminating duplication, extravagance, etc.

"(2) That county medical societies be requested to designate a standing committee, or establish a new one, to represent the society on poor relief matters.

"(3) That the Poor Relief Committee be authorized, with the approval of the Committee on Auditing and Appropriations, to engage competent legal counsel to assist it in preparing proposed legislation at the proper time so that the final recommendations of the committee can be presented in a coherent and logical manner for consideration of The Council.

"The committee believes that it has made considerable progress and that it has laid the ground work for a real attack on this problem. There is much to be done such as conferences with those agencies also interested in revamping the relief statutes and endeavoring to make whatever program may be agreed upon by the medical profession fit into proposed legislation to revise the entire relief setup of the state. The committee hopes to have additional recommendations ready for the consideration of The Council at an early date."

PROPOSED REDISTRICTING

A communication from the Columbiana County Medical Society, dated October 12, stating that the society had unanimously voted to petition the State Medical Association to transfer the Columbiana County Society to the Sixth Councilor District, was read. Dr. Skipp, Councilor of the Sixth District, discussed the question and presented a proposal for alteration of a number of the councilor districts and the establishment of a new councilor district (see special article on pages 82 to 83 in this issue of *The Journal*). On **motion** by Dr. Skipp, seconded by Dr. Smith and **carried**, The Council tentatively approved the redistricting plan as submitted, withholding final approval so that the matter can be presented to the House of Delegates next May, pending reports from various members of The Council following a discussion of the question with the various counties involved. The Executive Secretary was instructed to prepare a memorandum, explaining the redistricting plan, and maps to be used by members of The Council when contacting the county societies affected.

FINANCES AND BUDGET

A detailed report of the financial condition of the State Medical Association; a proposed budget for 1939; a proposed public relations program and progressive program of future activities for the State Association were presented by Dr. Skipp on behalf of the Committee on Auditing and Appropriations, of which he is chairman.

After a thorough consideration and lengthy discussion of the recommendations of the committee, on **motion** by Dr. Smith, seconded by Dr. Klotz and **carried**, The Council unanimously **approved** the recommendations of the committee for the expansion of the program and activities of the Association, including a recommendation that the House of Delegates be requested, at the 1939 Annual Meeting, to increase the dues of the State Association from $5.00 to $7.00, effective January 1, 1940, to provide sufficient funds for carrying out the proposed expanded program. (See pages 77 to 81 this issue). On **motion** by Dr. Sherburne, seconded by Dr. Hogue and **carried**, The Council unanimously **approved** the proposed budget for 1939 and the report as a whole.

The report of the Committee on Auditing and Appropriations as adopted by The Council was as follows:

REPORT OF COMMITTEE ON AUDITING AND APPROPRIATIONS

An all-day meeting of the Committee on Auditing and Appropriations was held in Columbus on Sunday, November 13, 1938. In addition to members of the committee, the meeting was attended by President Hein, President-Elect Smith, and Treasurer Beer.

Those attending the meeting thoroughly analyzed the financial condition of the Ohio State Medical Association. In doing so, careful study was given to the program of activities which has been carried on by the Association during the past year and in previous years. Also, the committee devoted considerable time and thought to the future program of the State Association.

The committee finds that finances and activities are interdependent. Therefore, in presenting this report to The Council, the committee necessarily must devote some attention to the question of the future program of the Association. For convenience this report has been divided into three sections, namely:

1. A review of the financial condition and ac-

tivities of the Ohio State Medical Association for the calendar year 1938.
2. A proposed budget for the calendar year 1939.
3. The future program of the Association and how to finance the same. (See pages 77 to 81 of this issue).

Section 1: Review of the Financial Condition and Activities of the Ohio State Medical Association for the Calendar Year 1938—

Reports submitted by the Treasurer and the Executive Secretary reveal that the estimated income of the Association for the calendar year 1938 will be approximately $44,909.00. This is in excess of the $70,000.00 stationary reserve fund established by The Council several years ago to meet emergencies. The estimated disbursements during 1938 will total approximately $40,670.00, leaving an unexpended balance of approximately $4,300.00 which will be available for operating expenses during 1939. At the beginning of 1938 the unexpended balance from the calendar year 1937 amounted to $8,059.00. This amount plus $30,123.00 in dues, $2,100.00 interest on investments, and $4,627.00 income from Annual Meeting exhibits make up the $44,909.00 in revenue for operating expenses during this year.

Why the Association will complete the year with an unexpended balance of only $4,300.00 in comparison to an unexpended balance in 1937 of $8,059.00 becomes quite apparent after careful analysis of the activities of the Association during 1938 and through comparison of 1938 activities with those of previous years.

It seems unnecessary for the committee to discuss in detail the program which has been carried on by the Association during the past year as members of The Council are quite familiar with this subject. Because of the excellent series of postgraduate lectures presented for the benefit of approximately three-fourths of the members; improvements in *The Journal* which have met with widespread approval among the members; increased field work on the part of members of The Council and increased activities of the various committees; public relations on a minor scale; larger expenditures for supplies, postage, telephone and telegraph necessary for carrying on the foregoing activities; and nominal salary increases effective January 1, 1938, the total expenditures by the Association during 1938 have been larger than in any previous year. Your committee believes that such expenditures have been justified and that, at the present time, the Association is doing a better job for the membership generally than at any time in its history.

While expenditures have been gradually increasing during the past few years because of increased activities and more benefits and services for all members, the income of the Association has not shown a proportionate increase. As a matter of fact the income of the Association is somewhat static. There has been a steady increase in membership during the past two or three years but the additional income from membership dues has been small in comparison to additional expenditures. This has made it necessary for the State Association to use more of its unexpended balance to meet current operating expenses until now, that figure, as pointed out, is less than half of what it was several years ago.

Thus it is obvious that the Association is confronted with a financial situation which deserves the most serious consideration of The Council. In the final analysis the situation resolves itself into this question: If the present program of activities and services of the Association is necessary and desirable (your committee believes that it is), a method of adequately financing this program during the ensuing years must be provided. Your committee has certain recommendations to make on this matter. However, these will be presented in Section 3 of this report. Therefore, permit us to offer, for the consideration of The Council, Section 2.

Section 2: Proposed Budget for the Calendar Year 1939—

Before drafting the proposed 1939 budget, the committee made a careful survey of the sources of revenue for 1939. It is estimated that the total income for operating expenses for 1939 will be approximately $40,080.00, divided as follows: Cash balance in excess of stationary reserve fund —$4,300.00; membership dues—$30,280.00 (6,000 members at $5.00—$30,000.00, 60 members at $3.00—$180.00, 50 members at $2.00—$100.00); interest on bonds—$2,100.00; estimated Annual Meeting income—$3,400.00. By comparison with the total income estimated for 1938, this figure is approximately $4,800.00 less. The difference is made up primarily by the reduction in the unexpended balance and the decrease in estimated Annual Meeting income. Also, it is approximately $600.00 less than the estimated expenditures in 1938.

In formulating the proposed budget which follows, the committee was unable to strike a balance. However, it is quite likely that, through careful handling of funds and efficient administration, savings can be made in some of the budgetary items with the result that total expenditures for 1939 will not exceed total estimated revenue. Nevertheless, it should be kept in mind that there is a strong possibility that the unexpended balance at the end of 1939 will be quite nominal, resulting in a further reduction of available current revenue for the year 1940.

BUDGET FOR 1939

1.	Ohio State Medical Journal	$12,500.00
2.	Executive Secretary, salary	6,000.00
3.	Executive Secretary, expense	800.00
4.	Asst. Exec. Secretary, salary	4,600.00
5.	Asst. Exec. Secretary, expense	400.00
6.	President, expense	400.00
7.	Treasurer, salary	300.00
8.	Council, expense	700.00
9.	Annual Meeting	3,000.00
10.	Committee on Auditing and Appropriations	100.00
11.	Committee on Public Relations	2,000.00
12.	Committee on Education	3,100.00
13.	Miscellaneous Committees	500.00
14.	Stationery and supplies	900.00
15.	Postage and telegraph	1,400.00
16.	Stenographers	2,580.00
17.	A.M.A. delegates, expense	300.00
18.	Office rent, insurance, bonding, etc.	2,540.00
	Total	$42,120.00

Explanation of Budgetary Items: Your committee recommends only a few changes in the budget which was in effect during 1938.

It will be noted that the committee has not provided for subsidizing district meetings during 1939. For the past four years The Council has appropriated $2,000.00 representing an amount of $200.00 per councilor district to be used in assisting the various councilor districts in holding district meetings. At the time this subsidy program was started by The Council, the State

Association had no program of postgraduate education worthy of the name. The Council felt at that time, and rightfully so, that the Association should begin to build an adequate postgraduate program for the membership at large. It believed that the proper approach might be through the district societies. However, within the past year and a half the Committee on Education has launched a program of regional postgraduate lectures. These will have been held in five regions by the end of 1938. The very best of Ohio talent has been utilized. A planned, graded program designed for a period of five years has been initiated. Attendance at these lectures has been exceptionally good. An unusual amount of interest has been manifested by members in the various regions. Some mistakes have been made, but none which cannot be rectified as experience accumulates. In general, the regional postgraduate lecture program has been an outstanding success and the results have surpassed the hopes of even the most optimistic members of the Committee on Education. The Committee on Auditing and Appropriations feels that this postgraduate program has justified itself in every way and should become a permanent part of the program of activities of the State Association.

The Association with its present income cannot continue to finance both the postgraduate lectures and the district meetings. Believing that the postgraduate lectures, when viewed from all angles, offer more benefits to a greater number of members than the average district meeting; provide an adequate program of postgraduate training for all members who are disposed to take advantage of the opportunities offered; and are, in the final analysis, of greater value because they are set up on a long range basis with careful planning and efficient promotion, your committee recommends that the money which has heretofore been set aside for district meetings be allocated to the Committee on Education so that it can hold a second year series of postgraduate lectures during 1939.

POSTGRADUATE PROGRAM

The committee does not wish to be misunderstood. This recommendation is not presented in a spirit of criticism of district meetings. Most of the councilor districts have held excellent district meetings. However, most of the district meetings are held spontaneously; are one-day meetings offering lectures on a variety of subjects instead of lectures based on a long range, graded program; and cannot possibly offer as balanced and selective a program as the program offered through the regional postgraduate lectures by the Committee on Education, in which there is a continuity of personnel and an opportunity for planning several years in advance. District meetings should be held as heretofore when there is sufficient sentiment within a district for a meeting. If this sentiment exists, obviously members attending such meetings will not hesitate to make a financial contribution to meet expenses incurred. Successful district meetings were held for years before The Council even considered the question of a subsidy and before the splendid postgraduate education program, which has been referred to, was inaugurated.

Of course the district societies may make use of the facilities of the Speakers Bureau of the State Association, and we strongly urge that they do so. We specifically recommend that the Speakers Bureau, on request, be authorized to provide two Ohio speakers per year for each councilor district, and reimburse such speakers for their expenses in case such expenses are not taken care of by the district society before which the speaker, or speakers, appeared.

Merely as a suggestion, your committee believes that the district societies should explore the possibilities of making district meetings somewhat in the nature of an organization meeting with a program consisting of a prominent speaker on some scientific subject and addresses and round-table discussions on some of the current, economic, social, legislative and professional questions confronting the profession. In other words, it would be possible, and might be profitable, for the district societies to present programs patterned after the programs which have been presented during recent years at the Fall Organization Conference held in Columbus for officers and committeemen of the county medical societies and the State Association.

Instead of budgeting only a nominal amount for Annual Meeting expenditures, the committee has inserted an amount estimated to be sufficient to meet all Annual Meeting expenditures. It was necessary to do so because the estimated Annual Meeting income has been incorporated in the total estimated revenue for 1939.

PUBLIC RELATIONS VITAL

An increase of $1,000.00 in the allotment to the Committee on Public Relations is suggested inasmuch as 1939 will be a legislative year and expenditures by this committee and its Sub-Committee on Legislation will be moderately heavy.

A total of $3,100.00 has been assigned to the Committee on Education to be used in defraying the expenses of the regional postgraduate lectures which will be held during 1939 and for expenses of the Speakers Bureau.

An increase of $200.00 for the Miscellaneous Committees account is recommended. At the present time all the committees of the Association are quite active. Meetings of these committees are being held more frequently. Programs suggested by these committees are gradually being initiated. Increased activity during 1939 may be anticipated. For that reason, this nominal increase for that account is deemed necessary.

The committee recommends that the Executive Secretary be authorized to employ additional stenographic help. Provision for an additional stenographer has been made in the salary item "Stenographers". The tremendous increase in Association activities, referred to throughout this report, places an additional burden on the State Headquarters Office staff. The staff has found it difficult to keep up with the routine work resulting from increased committee activity, enlargement of *The Journal*, preparation of an unusually large number of reports, bulletins, pamphlets, etc., and personal services for individual members. If the Association should inaugurate a public relations program during 1939 (we hope very much that it will), additional clerical help in the Headquarters Office will be imperative in order to insure efficiency and capacity production at that office.

A considerable decrease is shown in the amount allotted for the expense of A.M.A. delegates. The 1939 Annual Meeting of the American Medical Association will be held in St. Louis. The 1938 meeting was held in San Francisco. Railroad and Pullman fares from various Ohio points to St. Louis have been figured. An amount adequate to pay the railroad and Pullman fares of Ohio's seven delegates is recommended.

Space at the State Headquarters Office is insufficient. Additional space for filing and storage

cabinets is needed. Addition of personnel would mean more space must be made available. A room adjacent to the present Headquarters Office can be obtained at a nominal figure. The building management will remodel the room and bear the expense of consolidating it with the present suite of rooms occupied by the office. The committee recommends that the Association obtain this additional space at this time as there is no assurance that this space will be available after the first of the year.

The committee, in setting up the foregoing budget, has endeavored to make a careful comparison of the values of the various services and activities and has tried to make an equitable distribution of the revenue which will be available. It trusts that The Council will sympathize with the difficulties which were encountered. The committee believes that, in general, the proposed budget represents an efficient distribution and recommends that it be adopted as presented.

(For Section 3 of the committee's report dealing with "Future Program of the Association and How to Finance It", please turn to pages 77 to 81 this issue.)

MISCELLANEOUS

Coordinating Committee—Dr. Smith, chairman of the Coordinating Committee, presented a report on the progress being made by that committee. He reported that, at a meeting of the committee on November 12, the committee had voted to seek legal advice from the firm of Smith, Baker, Effler and Eastman, Toledo, with respect to the relationship between medical service plans, sponsored by medical societies, and the state insurance statutes. Dr. Smith also reported that the committee had given careful consideration to the question of establishing a public relations program and bureau under the direct control of the State Headquarters Office, and that the committee had approved this idea, referring the matter to the Committee on Auditing and Appropriations which had incorporated such recommendations in its report to The Council, already presented and approved. The Coordinating Committee, through Dr. Smith, suggested to The Council that a series of pamphlets on the question of socialized medicine be prepared and that copies be made available to individual members of the Association for their waiting room tables or for any other disposition they care to make of them. After a general discussion, on **motion** of Dr. Sherburne, seconded by Dr. Hogue and **carried**, the report and recommendations of the Coordinating Committee were **approved** as presented by Dr. Smith.

Request Legal Opinion—A communication received by him as Councilor of the First District from the Cincinnati Academy of Medicine, requesting the State Association to investigate the legal angles of medical service programs by medical societies and the possibilities of legislation on this question, was read by Dr. Schriver. The communication was referred to the Coordinating Committee which, as pointed out previously, already has sought legal advice and will be prepared to present a report on this matter at an early date.

Ethical Question—A communication from the president of a county medical society, with respect to the solicitation of charity work by physicians and a hospital of an adjoining society, was read. On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, the communication was referred to the Judicial and Professional Relations Committee for investigation and a subsequent report.

Medical History—A communication from Dr. Robert G. Paterson and Dr. Donald D. Shira, Ohio Public Health Association, that the State Medical Association collaborate with them in the publication of a history of medical organization in Ohio covering the past 150 years, was discussed. On **motion** by Dr. Hogue, seconded by Dr. Sherburne and **carried**, The Council voted to request the members of the Ohio State Medical Association who are affiliated with the Section on Medical History of The Ohio Archaeological and Historical Society to review the proposition and to submit a report to The Council at a later date, especially with respect to the salability of such a volume.

Support of Medical Board—On **motion** by Dr. Sherburne, seconded by Dr. Smith and **carried**, the following resolution, pledging the support of The Council to the State Medical Board, was adopted:

"Whereas, the State Medical Board has for its object the protection of the public from unqualified practitioners and unworthy individuals seeking to practice upon the credulity of the ill and suffering, and

"Whereas, the State Medical Board is greatly hampered by lack of funds to employ a sufficient number of inspectors and efficient clerical aid,

"Be It Resolved, That The Council of the Ohio State Medical Association urges the new state administration and the members of the 93rd Ohio General Assembly to give their sincere attention to the needs of the State Medical Board so that it can render more efficient services in the interests of the people of Ohio generally;

"Also Be It Resolved, That a copy of this resolution be sent to the Honorable John W. Bricker, Governor-Elect, for the purpose of bringing to his attention the deep interest of the organized medical profession of Ohio in the work of the State Medical Board, and respectfully requesting him to give the question of strengthening the services of the Board his earnest consideration."

Expert Witness—On **motion** by Dr. Smith, seconded by Dr. McNamee and **carried**, The Council instructed the Sub-Committee on Workmen's Compensation to discuss with representatives of the State Industrial Commission the matter of improving the present method of selecting expert witnesses used in litigation involving workmen's compensation claims.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

What Every Citizen of Ohio Should Know

Do You Want Copies of This for Your Office Reception Room? » » »

Do You Want Your Own Doctor . . or the "State Doctor"?

"WHAT a silly question", reply Mr. and Mrs. Citizen. "Of course, we want our own doctor for ourselves and our family."

But, dear Mr. and Mrs. Citizen, it is not a silly question. It has been asked in all seriousness. *You are going to have to answer it, too—and before long.*

Here are some facts which may startle you:

Do you know that the next United States Congress may be asked to enact legislation which would establish in the United States a *costly, politically-controlled system of medical service,* a la European model?

Do you know that a system of compulsory health insurance or a system of tax-paid medical care for all persons, both of which are being advocated and either of which would be operated and controlled by governmental agencies, would *change entirely the relationship which now exists between you and your family doctor?*

* * *

LET'S try to visualize what would happen if Congress should adopt either of these systems: You would be regimented so far as your health and medical needs are concerned; told when you need medical attention; when you do not; and where to go to get it—if "the bureau" decides you need it. In all probability, you would have to take the doctor sent by "the bureau"—*not your own doctor.* You might have to visit the government clinic.

Your present family doctor would be regimented, too. He would become a government employe, subject to orders from "the bureau". "The bureau" wouldn't be interested in seeing that you get your doctor. You'd have to take *any doctor* who happens to be on duty. Your doctor might be assigned elsewhere.

You are quite correct: This procedure would give you and your family only a salary-earning pill dispenser. Quite true: You would have little reason to take the "state doctor" into your confidence. Doubtless, you would have little confidence in him—not like the confidence which you have in *your own doctor* with whom you are intimately acquainted and who may have doctored your mother and your grandmother before you.

What kind of medical care would you get? That's a good point. Probably you would get an *inferior grade of medical attention.* The doctor assigned to your case never saw you before—he may never see you again. He should worry—you're just another case. You'd get a *hasty diagnosis and the standard treatment.* Remember, the "state doctor" would have to spend a lot of time filling out forms and complying with red tape. He wouldn't be able to spend much time on any one case. Then, too, he may not be very well posted on new methods of diagnosis and treatment because he hasn't had the time, or the incentive, to keep himself informed by attending medical meetings and reading medical books.

* * *

EVERYONE knows that the sick are not in any sense standardized and that, therefore, mass treatment can never be successful. However, this fact will not make much impression on "the bureau" which will be particularly interested in figures and forms.

Everyone knows that a patient usually picks a doctor because of the doctor's personality, integrity, honor and ability. You'll have little chance to use your own judgment under a governmental system.

Everyone knows that the present system forces onto the physician full and individual responsibility to and for his patient, challenging the doctor to do his utmost for the patient. This will not be the case when you become a patient of "the bureau", not of the doctor.

* * *

THIS will be your fate unless you do something to stop the present movement to socialize the practice of medicine in this country. If you and your friends say "no", Congress will not enact the proposals referred to. *You stand to lose under socialized medicine. It's up to you, therefore, to stop it now and each time it rears its head.*

A reasonable number of copies of the above article, which is the first of a series to be issued by the Ohio State Medical Association, will be furnished to any member without charge if he will file a request for copies with the State Headquarters Office, 1005 Hartman Theater Building, Columbus.

Indictments Returned Against A.M.A., Charging Anti-Trust Violations

As the January issue of *The Journal* went to press, dispatches from Washington stated that indictments charging violation of the Sherman Anti-Trust Law had been returned by a Federal Grand Jury against the American Medical Association, three allied groups, and 21 individuals, growing out of activities in opposition to Group Health Association, Inc., a cooperative medical service organization operated by the Home Owners Loan Corporation, a Federal agency, for its employes and other Federal employes.

According to the United Press, the indictments embrace five charges, namely:

(1)—That the defendants combined and conspired to prevent Group Health Association, Inc., from arranging for adequate medical and hospitalization care for its members.

(2)—That they combined and conspired to restrain members of the G. H. A. from obtaining adequate medical care for themselves and dependents.

(3)—That they combined and conspired to restrain doctors serving on the medical staff of the G. H. A. in the pursuit of their callings.

(4)—That they combined and conspired to restrain doctors not on the G. H. A. staff in the pursuit of their callings.

(5)—That they combined and conspired to restrain Washington hospitals in the business of operating such hospitals.

"In so doing, defendants have engaged in an unlawful combination and conspiracy in restraint of trade," the indictment stated.

In addition to the American Medical Association, the indictments named the Medical Society of the District of Columbia, the Harris County (Texas) Medical Society and the Washington, D. C., Academy of Surgery. Among the 21 accused individuals were the following A. M. A. officials: Dr. Morris Fishbein, editor, *The Journal of the A.M.A.;* Dr. Olin West, secretary and general manager; Dr. William C. Woodward, director, Bureau of Legal Medicine and Legislation; Dr. William D. Cutter, secretary, Council on Medical Education and Hospitals; and Dr. R. G. Leland, director, Bureau of Medical Economics. The others were officers or prominent members of the Medical Society of the District of Columbia.

Legal counsel for the American Medical Association informed the press that the defendants would "defend the case to the limit", contending that the government is proceeding "on a glaringly illegal basis".

Next General Assembly Will Convene on Jan. 2; Leaders Selected

The 93rd Ohio General Assembly will convene in regular session, Tuesday, January 2. During December the Republican members of the House of Representatives selected William M. McCullouch, Miami County, as Speaker, and J. Harry McGregor, Coshocton, majority floor leader. Lieutenant-Governor Paul Herbert, Columbus, will preside over the Senate. At a recent caucus, the Republican members of the Senate chose Frank E. Whittemore, Akron, as president protem and floor leader. Thomas E. Bateman, Columbus, will be clerk of the Senate and Otis R. Johnson, former Fulton County representative, will be clerk of the House of Representatives.

Michael A. Feighan, Cleveland, has been selected minority floor leader by the Democratic members of the House of Representatives. A recent caucus of the eight Democratic members of the Senate adjourned after 52 ballots had failed to result in the election of a minority floor leader.

As *The Journal* went to press the 92nd General Assembly was preparing to reconvene on December 30 for a special session called by Governor Davey to consider aid to the school foundation program, through the re-enactment of the cigaret and liquid fuel taxes which expire March 31, 1939, and "such other matters as the governor may recommend for consideration".

It was reported that "other matters" would include the appointment of a successor to Thomas M. Gregory, Cincinnati, chairman of the State Industrial Commission, whose six-year term expired in June, 1937; the re-appointment of Charles S. Leasure to a six-year term on the State Unemployment Compensation Commission. and confirmation of the Governor's appointments to the district claims boards of the State Industrial Commission.

Coming Meetings

Ohio State Medical Association, Toledo, May 3-4.

American Medical Association, St. Louis, May 15-19.

American Academy of Orthopedic Surgeons, Memphis, Jan. 15-19.

American College of Physicians, New Orleans, March 27-31.

American Congress of Obstetrics and Gynecology. Cleveland, Sept. 11-15.

International College of Surgeons, New York, May 22-24.

Shall We Advance or Retreat?

The Council Votes for a Fighting Offense Through an Expanded Program of Activities to be Financed by a Nominal Increase in Per Capita Dues; Final Decision Up to the House of Delegates; What Can and Should be Accomplished

By BARNEY J. HEIN, M.D.,
President

THIS personal communication to all members of the Ohio State Medical Association on a question of vital importance to each and every one of you has been prepared at the request of The Council. I join with The Council in asking all members to give the subject their earnest consideration.

At its regular meeting on December 3 and 4, The Council devoted hours in carefully analyzing the present program of activities of the Ohio State Medical Association; in surveying possibilities for expanding present activities and services and adding new ones; and in considering ways and means of financing activities which should be added to the agenda of the Association.

Finally, The Council unanimously agreed upon a proposition which, in my opinion, is one of the most constructive and progressive proposals ever presented to the membership for official action through the House of Delegates.

I shall endeavor to review briefly the plan of procedure approved by The Council and which will be submitted next May to the House of Delegates for consideration, and to interpret for the benefit of the members the situation which confronts the Association and which must be faced in a decisive manner.

The following points, cited by the Committee on Auditing and Appropriations which acted as a survey agency for The Council, are vital:

1. **Is the present program of the State Association adequate to cope with present-day economic, social and legislative problems confronting the medical profession of Ohio, and to provide maximum benefits for members.**

The Council believes that great strides have been made in the past several years and that the Association is rendering efficient services. Nevertheless, it believes that the program of the Association must be stepped up. Present-day problems demand aggressive activity by the medical profession through its official organizations. The present State Association program is not geared high enough to cope with these problems and give maximum service to members.

2. **The present current income of the Association is barely adequate to finance the present program.**

In surveying the finances of the Association, The Council found that some of the present activities and services may have to be curtailed to keep income and expenditures balanced.

3. **There are many definite projects which should be sponsored by the Association for the protection of the membership as a whole and to give the members benefits and services comparable to those provided by state medical societies of some of the other larger and progressive states.**

New activities and services discussed by The Council as possibilities will be referred to later.

4. **If the program of activities of the Association is to be expanded, a way to finance such expansion must be found.**

The Council emphatically believes that expansion is imperative. It is confident that the members will be willing to finance additional activities which will offer greater benefits and provide the profession with a stronger offensive for the rough-and-tumble battles confronting the profession.

5. **An increase of $2.00 in the per capita an-**

nual dues would provide the Association with an annual income sufficient to finance the expansion program advocated by The Council, without working a hardship on any member of the Association.

This is the recommendation of The Council for solving the financial problem involved in making the Association stronger and more useful. It is based on the principle that greater advantages may be obtained from the pooling of funds and concerted action than from individual expenditures and individual activity.

6. **In the final analysis, The Council believes that the Ohio State Medical Association should equip itself to attack and not be forced to retreat; that it should maintain an even more progressive program than the one now in effect.**

Appended is a detailed report presented to The Council by the Committee on Auditing and Appropriations, reviewing present activities and showing where and how these should be improved and enlarged. Also, the report lists new activities and services which should be added to the Association's program. I hope each member will read that report carefully.

Permit me to comment briefly on some of the important recommendations which met with the approval of The Council. If the income of the State Association is increased between $10,000 and $12,000, through a $2.00 increase in per capita dues (an amount less than 5 cents per week per member), the following additions to and improvements in the program of the Association could be made:

PUBLIC RELATIONS NEEDED

1. **An efficient and effective Public Relations Program could be started.** This is something which has been sadly neglected. We must get our viewpoints and accurate information to the public. The members generally are demanding that something be done by the medical profession to combat the propaganda and activities of those who want to revolutionize the practice of medicine. Passive resistance will not suffice. We must fight and use modern weapons of public education. The Council believes that a department of public relations should be organized as a part of our State Headquarters Office to carry on a state-wide educational program and assist local medical societies in public relations activities. An effective public relations program will cost money. Additional, competent personnel will have to be obtained as the present Headquarters Office staff already is overloaded with details resulting from the expansion of activities during the past several years. Such a program also would involve expense for printing, postage and field work. It would not be exaggerating to say that perhaps it would take three-fourths of the additional income of the Association to adequately finance the proposed public relations department and program.

2. **It has been demonstrated during the past year or two that the medical profession must take a greater direct interest in political and legislative affairs.** More field work on legislative matters will be required during ensuing years. The field of activity has widened. Now we must watch developments at Washington as well as Columbus. Greater activity, more field work, more committee work, etc., will necessitate heavier expenditures.

3. **Provision for better postgraduate education facilities for all members must not be neglected.** By pooling its funds, the membership can provide better opportunities for better postgraduate training than through individual expenditures. To date, our postgraduate program has been financed in a rather hit-and-miss fashion. Permanent provision for meeting the costs of our promising postgraduate program must be made. There is no better way for our members to provide continuing educational facilities for themselves than by expanding present activities in this field now sponsored by this Association.

4. **The Ohio State Medical Journal is one of the best state medical journals in the country.** It would be a shame to retard its progress by curtailing financial support. Improvements which have been made in *The Journal* have cost money but it has been money well spent, and the dividends have been large. To cut *The Journal's* budget would be a serious mistake, in my opinion.

5. **Activities of the Association must be carried on through active committees.** We never have had such active committees as at present. They cannot carry on efficiently and the programs which they propose and sponsor cannot be initiated unless we provide them with adequate funds. Many good ideas will go to waste unless we provide necessary financial support.

INNOVATIONS SUGGESTED

6. **There are many new activities and services,** in addition to those already mentioned, which should be undertaken by the Association. Other state medical societies have inaugurated services which should be started in Ohio. Following are some of the suggestions which have been taken into consideration by The Council:

Enlargement of the Speakers Bureau to provide better service to our own component medical societies and speakers for meetings of lay groups.

Enlargement of the present "reference library" at the Columbus office which may be used by the members to obtain information and data on a wide variety of subjects.

Inauguration of radio programs.

Construction of educational exhibits which can be used at medical meetings and for demonstrations at public gatherings.

Expansion of activities of the Committee on Public Health Education to carry to the public information about scientific medicine and the value of preventive services.

Installation of a business consultation service to which members can write for advice and suggestions on office routine, handling of financial details, collection of accounts, etc.

Distribution of literature, reprints, pamphlets, etc., on scientific and non-scientific subjects of interest directly to members.

Figuring that from one-half to three-fourths of the additional income from the increased membership dues would be necessary to adequately finance a good public relations program, you can see readily that the balance could be put to good use in underwriting activities and services enumerated above.

COMPARISON OF DUES

Incidentally, it will interest the members to know that the present per capita annual dues of the Ohio State Medical Association ($5.00) are considerably less than those of the other large state medical societies. Let us take some of the surrounding states, for example. Annual dues in Michigan are $12.00; Pennsylvania, $10.00; West Virginia, $10.00; Illinois, $8.00, and Indiana, $7.00. Indiana is considering a proposal to increase its dues to $12.00. Dues of other representative states are: Colorado, Minnesota, New Jersey and Wisconsin, $15.00; California, Massachusetts and New York, $10.00; Texas, $9.00 and Missouri, $8.00. **In fact, 32 of the 41 state medical societies assess annual dues which are from $1.00 to $10.00 per capita larger than the present dues of the Ohio State Medical Association.**

I have tried to present concisely the problem confronting us and the solution. Between now and next May, when the House of Delegates will be requested to pass on the program suggested by The Council, members of The Council will visit the medical societies in their districts for the purpose of explaining the proposition and receiving the suggestions of individual members. Members should not hesitate to express opinions on this question. In the end, this Association belongs to the members. Its destiny is in the hands of the members. It can progress if the members give the word—or it can stand still. Benefits to the members will increase in proportion to the additional accomplishments of the Association. The membership must return the verdict by letting their official delegates know how they should vote on the proposals offered.

That part of the report of the Committee on Auditing and Appropriations dealing with the expansion program and which carries the approval of The Council follows:

COMMITTEE'S RECOMMENDATIONS ON EXPANSION PROGRAM AND DUES

IN the opinion of your committee, it is necessary for The Council, at this time, to consider what should be the future financial policy of the Association in the light of present-day developments, the necessity for militant action by medical organization, and anticipated action to cope with future events and developments.

Sections 1 and 2 of this report (See Proceedings of The Council, this issue) indicate that the activities and program of the Association have been expanded just about as far as funds will permit. The current income of the Association is more or less inflexible, under the present rate of per capita assessment. It is hoped that the membership will continue to show a gradual increase. However, the annual membership increase will produce but a nominal increase in revenue in comparison to the entire budget of the Association and the many activities being carried on. Your committee feels that not only should all the present activities of the Association be continued but that many of them should be improved or "stepped up", and new activities which would benefit individual members and the profession as a whole should be added to our program.

For example, the Committee on Auditing and Appropriations thoroughly approves a recommendation which has been submitted to it by the Coordinating Committee, selected by President Hein on authorization of The Council, urging the Association to launch a public education (public relations) program through a special bureau to be established as a part of the State Headquarters Office under the direction of the Executive Secretary and provided with competent personnel. In its recommendation the Coordinating Committee suggests the employment of a man with newspaper training who, after some experience and apprenticeship in the Headquarters Office, might take over the work of such a bureau. It is estimated that, to start with, an appropriation of approximately $6,000.00 might be sufficient to properly man this bureau, provide sufficient office space for the bureau, and to meet incidental expenses such as traveling expenses, postage, material, etc.

In making its recommendation the Coordinating Committee states quite correctly that there has never been a time when there has been greater need for a good public relations program, under the direction of the Ohio State Medical Association. As stated by the committee, the pendulum is swinging and it is the responsibility of organized medicine to make sure that it swings in the right direction so far as medical and health questions are involved. The Committee on Auditing and Appropriations agrees with these sentiments and it, too, feels that right now is the proper time for the medical profession to educate the public about some of the problems of the profession, the questions involved in health and medical care, and the evils which are certain to arise should some of the proposals which have been offered be enacted into law. A closer relationship between the profession and the people must be established. This can be accomplished through public relations. Efforts in this direction should be well-planned and worked out on a long range basis. Public opinion cannot be swayed except through a sustained campaign extending over a period of months as well as years. This part of the responsibilities of organized medicine has been sadly neglected. It is not too late, in our

opinion, to rectify this mistake. However, if this Association is to do anything about it, it must act promptly. We concur in the recommendations of the Coordinating Committee and submit such recommendations to The Council for consideration.

There are other angles to this situation which are of equal importance and should be considered:

LEGISLATION AND EDUCATION

Legislative activities and public relations are closely allied. As experience has shown, the medical profession in the future must take a more direct and vigorous part in politics and legislative affairs generally than it has in the past. Questions of paramount interest are pending. The profession must be properly equipped to meet these questions. Therefore, more machinery should be provided, or at least that which exists must be stepped up. It should be noted that in past years practically all of our interest in legislative matters has been confined to state legislation. Now the field of battle covers not only the state capital but the national capital. Closer contacts must be maintained between the profession and members of the Congress. This means more work and more money.

During the past several years the Association has made considerable progress in the field of postgraduate education. The present program of postgraduate education has gotten away to a good start and has been well received by the membership at large. It must be maintained and enlarged, where needed. In the final analysis, medical organization is just as much obligated to provide educational facilities for its members as it is to provide them with protection on legislative matters. A profession which is in tune with the times, and with the rapid advancement being made in medicine, will be in a better position to render more adequate and more competent medical care and, therefore, will be subject to less criticism from the public, generally, than a profession which is not so well trained and equipped. Medical organization has a big responsibility in this field. Postgraduate education costs money. By pooling their funds through the State Association physicians can provide for themselves better postgraduate facilities than through independent action—in other words, by spreading the cost throughout the entire membership. Rather hit-and-miss methods of financing the present educational program have been used. Adequate funds for this activity should become a permanent part of the budget. It should not have a hand-to-mouth existence. The Committee on Education finds it difficult to formulate definite plans, and set out to accomplish what it hopes to accomplish under the present situation.

VALUE OF THE JOURNAL

The Ohio State Medical Journal has become one of the best, if not the best, medical journals in the country. It is being widely read by the members and, judging from reports from all parts of the state, members are greatly pleased with the improvements which have been made in its appearance and content. This is one of the primary activities of the Association. It is the one medium through which organized medicine can reach all its members at least 12 times a year. It is the official mouthpiece of the Association. Improvements which have been made have cost money. Adequate financing will be required to keep *The Journal* at its present high standard. Obviously, the additional money which has been used in improving *The Journal* has had to come from State Association funds, as advertising revenue is largely a static thing. The result has been that some money which could have been used for other activities has been used in publishing *The Journal.* This is as it should be. However, to bring other activities into step with the progress which *The Journal* has made, will require additional revenue. Incidentally, costs in publishing *The Journal*—printing, paper, engraving, etc. —have been increased substantially during the past few years and there is a likelihood that such costs may become even larger during the ensuing years.

At the present time the State Association has a greater number of active and aggressive committees than at any time in its history. Obviously, this has meant more committee meetings and increased expenditures, including reimbursement of committee members for traveling expenses incurred in attending such meetings, and financing the various programs formulated and sponsored by such committees. Also, field work on the part of members of The Council has increased materially during the past several years. Field work costs money but it is money which produces dividends of immeasurable value. Greater committee activity and more field work should be carried on in the future if additional revenue can be provided.

It woud be possible, annually, for the State Association to make a profit on the Annual Meeting. However, to do so it would have to curtail materially the Annual Meeting program and do away with some of the semi-social features which have been attractive to those in attendance. The Annual Meeting provides a rallying point for the entire membership and it is something which many members look forward to each year. One way to kill the Annual Meeting is to make it a cut-and-dried, stereotyped and cheap event. Money which has been expended in recent years on the Annual Meeting has been well spent, and the present policy of making the Annual Meeting the best possible type of meeting should be continued. The Association should not count on any substantial profits from the Annual Meeting to carry on other activities.

For the past two years the State Association has reimbursed Ohio delegates to the A.M.A. for their railroad expenses. This policy should be continued and, if possible, an even larger grant should be made to such delegates who represent the entire medical profession of Ohio at the official gatherings of the A.M.A. and are compelled to be away from their home and practice while so doing. When the Association can afford it, other expenses of such delegates, such as hotel and meals, while attending the A.M.A. meeting should be paid.

At the present time, the State Association has been compelled to pay out $500.00 annually in payroll taxes to the State Unemployment Compensation Commission. These taxes will increase. This amount is not much but it does play a part in the entire financial situation.

The amount of routine activity and correspondence carried on at the State Headquarters Office today is many, many times greater than that of a few years ago because of the gradual increase in the general activities of the Association and the trend of the times. These activities have required larger expenditures for postage, supplies, etc. These expenses will, of course, increase as new activities are added.

In addition to activities already enumerated, the

following new activities are possibilities: Enlargement of the Speaker Bureau so that the Association can provide speakers for lay groups. Improvement in the present "reference library" of the Association to which members can go for information on many non-scientific subjects. This would be a mechanical detail which would be undertaken if additional personnel is provided. Building of a number of scientific and educational exhibits which could be provided for meetings of lay groups. Radio programs. Expansion of the activities of the Committee on Public Health Education. Retaining legal counsel to assist the Association and various local medical societies on legal matters pertaining to new programs of medical services for low income groups, etc.

SOME PERTINENT QUESTIONS

These are some of the serious questions studied by your committee at its recent all-day session. The situation, as we see it, boils down to these specific points:

(1) Is the present program of the Association sufficient, not only to provide maximum benefits to members, but also to cope with present-day economic, social and legislative questions confronting the profession?

(2) It is extremely doubtful if even the present program of activities can be carried on in its entirety at the present current income of the Association. Use of the stationary reserve fund should not be considered for permanent activities as that fund has been created for a definite purpose, namely: As an "ace in the hole" to be used by the Association for emergencies such as, for example, to combat such matters as a state-wide referendum, compulsory health insurance, other types of proposed legislation which would require expensive organized campaigns, etc.

(3) There are many new activities which the Association could and should undertake and there are many improvements which could and should be made in present activities.

(4) If the program of activities of the Association is to be expanded, then the tools (funds, facilities and personnel) must be provided.

(5) How are these tools to be provided?

Having given these matters its serious attention, your committee offers this recommendation: That The Council recommend to the House of Delegates, which will meet in regular session next May during the 93rd Annual Meeting of the State Association, that the annual dues levied per capita on the members of the Ohio State Medical Association be increased from $5.00 to $7.00 per annum, effective January 1, 1940. By way of explanation, permit us to point out that should the House of Delegates approve this recommendation immediately thereafter the proper machinery for expanding and stepping up the activities of the Association can be set up and financed by borrowing from the stationary reserve fund.

MUST BE AGGRESSIVE

This, in the opinion of your committee, is the only solution to the problem which confronts us. The physicians of Ohio expect the Ohio State Medical Association to take the lead in concerted programs for the benefit of members of the profession, to improve the public health, to maintain and enhance the present standards of medical practice, and to safeguard the interests of the members of the medical profession in Ohio. The Association has done remarkably well. However, it is doubtful if it can furnish more aggressive leadership and expand its scope of activities unless it has greater resources at its command.

It will interest The Council to know that the annual dues of 32 of the 41 state medical societies in this country are larger by from $1.00 to $10.00 than the annual dues of the Ohio State Medical Association. In addition to our own Association, the medical societies of the following states levy annual dues of $5.00; Arkansas, Connecticut, Kentucky, Montana, North Dakota and Virginia. The annual dues in Mississippi are $4.00 and in Alabama, $3.00.

Your committee has prepared a proposed tentative budget showing what could be accomplished through additional revenues provided by this nominal $2.00 increase in the annual dues—an amount totaling less than 5 cents per week. Each item in this budget can be substantiated and justified on the basis of necessity and desirability. Increased annual dues, as recommended, and the adoption of a budget based on the increased revenue would, in our opinion, return huge dividends in the form of additional benefits and services, as well as greater protection to the profession. We urge The Council to give our recommendations serious consideration and subsequent approval, and that it take the leadership in presenting them to the House of Delegates in May.

Annual Meeting Plans Progressing; Dr. Brindley Local Chairman

Plans for the 93rd Annual Meeting of the Ohio State Medical Association to be held at the Commodore Perry Hotel, Toledo, Wednesday and Thursday, May 3 and 4, have passed the preliminary stage and are fast nearing completion.

Since the joint meeting of the Committee on Scientific Work and officers of the sections held at Columbus, October 30, applications have been received from a number of Ohio physicians who wish to appear on the section programs. Speakers will be selected at a meeting of the Committee on Scientific Work to be held shortly after the first of the year. Several out-of-state guest speakers have already accepted invitations to address general sessions at the meeting. Arrangements also are being made for a series of round-table conferences on scientific subjects.

At the last meeting of The Council, Dr. Arthur A. Brindley, Toledo, was appointed General Chairman of the Committee on Local Arrangements for the 93rd Annual Meeting. Dr. Brindley, an active member and member of the Council of the Toledo Academy of Medicine, formerly practiced at Swanton and Port Clinton. He has served as secretary of the Fulton County Medical Society and secretary and president of the Ottawa County Medical Society.

Dr. Carll S. Mundy, who will be president of the Toledo Academy of Medicine during 1939, and long active in the affairs of medical organization, will work with Dr. Brindley on local arrangements.

Watch subsequent issues of *The Journal* for details about the 93rd Annual Meeting, and remember that it will be held at Toledo, May 3-4.

Change in Set-Up of Several Councilor Districts and Creation of New One Recommended by The Council

FOR some time The Council of the Ohio State Medical Association has had under consideration requests from several component medical societies that they be transferred to other Councilor districts, citing sound and logical reasons for such transfers.

This question was thoroughly considered by The Council at its meeting on December 3 and 4.

The net result was that The Council has devised a plan for partial redistricting of the state. This will be discussed by members of The Council with the county medical societies affected. If the proposal meets with general approval, it will be submitted to the House of Delegates at its meeting next May at the Ninety-Third Annual Meeting in Toledo. Action of the House of Delegates will be required inasmuch as an amendment to the By-Laws of the State Association will have to be adopted to make possible the redistricting plan formulated by The Council.

The accompanying map shows how the state would look after some of the Councilor districts have been revamped. The figures in the circles are the estimated membership of the various districts under the revised setup. Following are some of the pertinent points in the redistricting proposal:

1. A new Councilor district would be created. It would be known as the Eleventh Councilor District and would be composed of the following counties: Lorain, Erie, Huron, Medina, Wayne, Ashland, Richland and Holmes. Total membership will be approximately 334.

2. Creation of this new district would give those eight counties, where there are active and alert county medical societies, an opportunity for representation on The Council of the State Association. At present these counties are in large Councilor districts in which there are large, urban societies or academies. Moreover, the new alignment would result in a much better geographical distribution of six or eight counties. More compact units would be established, facilitating travel by members to district meetings and by Councilors in visiting their respective societies.

3. As proposed and shown on the map, Columbiana and Trumbull counties would be placed in the Sixth Councilor District. Geographically, that is where those counties belong, in the opinion of The Council. Also, this arrangement would be in line with sentiments expressed by a considerable number of members of the societies in Columbiana and Trumbull counties whose professional relations are primarily with the counties which would make up the balance of the Sixth District.

4. Crawford County now on the extreme Northern edge of the Tenth District would be transferred to the Third District. This would be a much better geographical arrangement, removing Crawford County from an "island" position between the Tenth District and several other Councilor districts.

5. Fayette County, now on the extreme Northeastern edge of the First District would be transferred to the Tenth District, a more natural location for that county and necessitating less travel on the part of the Councilor.

Loses and gains in membership of the various districts would be as follows:

Fifth District—This district now composed of nine counties (Ashtabula, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Medina and Trumbull) would be reduced to four counties (Ashtabula, Cuyahoga, Geauga and Lake), but still would have a total membership of approximately 1,200, making it even under the new plan the largest Council district. The net loss in membership to the Fifth District would be approximately 250, distributed between the Sixth District and the new Eleventh District.

Sixth District—This district now consisting of eight counties (Ashland, Holmes, Mahoning, Portage, Richland, Stark, Summit and Wayne) would lose Ashland, Holmes, Richland and Wayne counties, which would be transferred to the new Eleventh District, and gain Trumbull and Columbiana counties. The revamped Sixth District would have a total membership of approximately 875, a net loss of about 25.

Seventh District—This district would lose Columbiana County (transferred to the Sixth District) with a net loss in membership of about 65.

Tenth District—This district would lose Crawford County and gain Fayette County, resulting in a net membership loss of approximately 15.

Third District—This district would gain one county (Crawford County) with a membership gain of approximately 30.

First District—This district would lose one county (Fayette County) with a membership loss of approximately 17.

It is the belief of The Council that the new alignment would bring about a better distribution of members, make the organization setup more compact, permit more efficient organization activity, and add to the convenience of members and Councilors.

County medical societies involved should discuss



HOW STATE WOULD LOOK UNDER COUNCILOR REDISTRICTING PROPOSAL

the proposal at an early meeting with their respective Councilors. The Council welcomes additional suggestions and will be glad to consider recommendations from members before the proposal is put into final shape for presentation to the House of Delegates next Spring.

Since the state was laid out in Councilor districts the problems confronting the medical profession have multiplied many-fold. This has necessitated greater organized activity. For this reason, more compactness in the physical set-up of the State Association is required, so that members of The Council may keep in closer touch with their respective districts and to facilitate action on state-wide questions by the various districts and local societies.

Also, there are strong arguments in favor of increasing the size of The Council as questions multiply. There is much talent among the membership not being used at present in official capacities. As new problems arise, additional talent must be used. Through gradual changes in the Councilor districts, The Council can be enlarged, adding to efficiency in handling organization business and giving certain parts of the state a more direct representation on the governing board of the State Association.

Do You Know - - -

Dr. Edward J. McCormick, Toledo, has been invited to appear before the Dies Committee, which has been investigating subversive activities in the United States. As Grand Exalted Ruler of the Benevolent and Protective Order of Elks, Dr. McCormick has vigorously denounced Communism and other un-American-isms.

* * *

Dr. Bernhard H. Nichols, Cleveland, is the new president of the Radiological Society of North America.

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During the past year scientific addresses were made at meetings of the Portage County Medical Society by two physicians who are sons of members of the society. In the society are fathers of five men and one woman who are either practicing medicine or about to graduate.

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Only 55 cases of infantile paralysis were reported to the State Department of Health up to December 20, 1938, compared with 533 during 1937.

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The following resolution was passed at the recent Illinois Republican State Convention: "The Republican Party believes that medicine should be protected as an independent force for human good, free from political domination or control. . . . We pledge protection to a free and independent profession".

* * *

The First Annual Congress on Industrial Health, sponsored by the American Medical Association, will be held Monday and Tuesday, January 9-10, at the Palmer House, Chicago. Speakers include Dr. C. D. Selby, former President of the Ohio State Medical Association, and now President of the American Association of Industrial Physicians and Surgeons.

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A recent survey shows that seven of every ten persons entering a retail drug store patronize the soda fountain, and that this department takes in 31 cents of every dollar spent in the establishment.

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An interesting report by the Bureau of Investigation of the American Medical Association on "Dr. Nathan Tucker's Specific for Asthma", a product of Mount Gilead, Ohio, appears in the December 10 issue of *The Journal of the A.M.A.*, page 2229.

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The U. S. Public Health Service hospital for narcotic addicts at Fort Worth, Texas, the second of its type, was recently dedicated. The new institution covers 1,400 acres and cost $4,000,000. The first federal narcotic hospital was opened at Lexington, Ky., in 1935.

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The first Negro physician in this country was Dr. James Derham of Philadelphia, who settled in New Orleans before the beginning of the Washington administration.

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Dr. E. LeFever, Glouster, was presented a 50-year Masonic Medal at a recent meeting of Glouster Lodge, No. 607, F. and A. M.

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Included in the 136 members of the House of Representatives and 35 Senators of the 93rd Ohio General Assembly, are 51 lawyers and one law student.

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A volunteer blood transfusion service was recently established by the Red Cross at Cincinnati General Hospital. Of 150 men and women who volunteered for the blood donors' list, about 130 were accepted following examination.

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Following a recent lecture on "Food Fads and Follies", at a teacher's convention in a Western State, Dr. Morris Fishbein found his overcoat pockets stuffed with bottles of patent medicines.

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A medical examination before marriage is compulsory in Turkey.

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George P. Leonhart, known to many physicians who studied anatomy at Western Reserve University School of Medicine, died recently after 36 years as prosector at that institution.

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Dr. Clyde L. Cummer, Cleveland, was recently re-elected director and treasurer of the American Academy of Dermatology and Syphilology.

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Dr. George W. Crile, Cleveland, has gone to Guatemala on a scientific expedition. He was accompanied by Mrs. Crile and Dr. Daniel P. Quiring, assistant professor of biology at Western Reserve University.

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Dr. A. E. Jones, Belle Center, recently entered golfdom's hall of fame with a hole-in-one, his first shot of the afternoon, on the No. 1 hole, 180 yards.

Have You Paid Your 1939 Membership Dues?

Because of the way 1939 State Association membership dues are coming in at the Headquarters Office, Columbus, from local secretary-treasurers, it hardly seems necessary to carry this general reminder that **membership in the State Association dates from January 1 and that annual dues are due on or before that date.**

However, there may be a few members who have forgotten the date and a few more who have failed to realize that it is a hazardous thing to permit membership in county, state and national medical organizations to lapse.

Members (those whose annual dues are paid) are entitled to the following benefits, services and privileges which do not accrue to non-members: Eligibility to fellowship in the A.M.A.; receipt of *The Ohio State Medical Journal* monthly; right to attend meetings of county medical societies, the Annual Meeting of the State Association, and district and postgraduate meetings; use of special services and facilities provided through the Headquarters Office; preferred standing and rating by the State Industrial Commission, private insurance companies, special scientific and professional societies, hospitals, army, navy and other governmental medical units and agencies, the courts and postgraduate schools of various medical colleges. Also, it should be remembered that most professional indemnity insurance companies will not insure physicians who are not members of their local and state medical societies.

It is suggested that each member **renew his membership for 1939 now by paying 1939 dues to the secretary-treasurer of his county medical society.** Membership of the State Association at the time this went to press was 6122, a new all-time record. This figure should increase considerably during 1939 as no physician in these times can afford not to be a member of the Ohio State Medical Association.

Problem of Marihuana

Marihuana, as produced in the United States, presents a problem to chemists, agronomists and pharmacologists, as well as sociologists, it was reported by U. S. Commissioner of Narcotics Harry J. Anslinger, at the first general conference on the problem held recently in Washington, D. C.

Following the conference, it was stated that the two immediate problems in the study of the drug obtained from Indian hemp are the necessity of determining the active constituents of the narcotic obtained from the hemp plant and to perfect a hemp variety that will fill industrial requirements while producing a negative quantity of marihuana. Chemists generally are agreed that cannabinol, the oil narcotic resin derived from hemp, contains more than one drug, although experiments so far have failed to isolate or identify them.

Trips to the Altar

Recent marriages of Ohio physicians include the following: Miss Charlotte Elizabeth Spellmire and Dr. Paul E. Foy, Troy; Miss Ann Sheldon and Dr. Maurice V. Sheets, Newcomerstown; Miss Dorothy Hoyt and Dr. Edwin Mollin, Akron; Mrs. Blanch K. Pollock and Dr. John G. Wishard, Wooster; Miss Mary Ailes and Dr. J. M. Shaffer, Cincinnati; Miss Frances Bailey and Dr. David S. Arbuckle, Akron; Miss Betty Hunter and Dr. John R. Shoemaker, Cuyahoga Falls.

Open New Offices

The following Ohio physicians recently opened new offices: Dr. Myron Freilich, Zanesville; Dr. W. S. Elliott, Norwalk; Dr. P. B. Berger, Englewood; Dr. Sol Asch, Portsmouth; Dr. K. W. Cook, Columbus; Dr. James E. Ryan, Kelleys Island. Dr. J. H. Meister, Celina. Dr. Howard Beane, Hamilton, Dr. A. N. Davis, Dayton. Dr. W. P. LaNeane, Jr., Peebles.

Office Problems of the Physician

STANLEY R. MAUCK

MUCH has been written and said in recent years about medical economics, or the business side of medicine, to the point where some physicians are surfeited with such discussion. To others this new emphasis in professional practice is positively revolting, especially to those who practiced many years before the advent of the present unsettled era. Unquestionably there is a tendency to overplay the subject at times.

Few will deny, however, that the radically changed conditions in a topsy-turvy economic order have presented new and acute problems for most physicians. It is to be hoped that this changing order will stop short of making the physician into something other than a benefactor to humanity in physical distress. We resent his being relegated to the position of a mere automaton of the political state. Nor should it become necessary for him to subordinate professional standards to economic considerations and commercial methods.

Yet almost every practitioner is today compelled to think more seriously of his profession as a means of making a living—**the economic factor.** The "horse-and-buggy" physician of a generation ago was serving a "horse-and-buggy" clientele. For the physician to remain geared to this out-moded method of transportation, in his business relations with his patients, means that he jogs along complacently while his patients, in the modern tempo, whiz by in new shiny automobiles to the office of the finance company, using his money to pay the monthly installments on their cars.

There is no breach in medical ethics if the physician ponders seriously what changes in fundamental business procedure may be required to keep him abreast of the changed conditions in this new era of mass production and installment buying. Scientific progress in medicine has kept fully apace of the times. Practical suggestions that stimulate improved methods to protect the physician's income and other economic assets are, therefore, in keeping with present-day requirements for a balanced practice. Improvement in basic business efficiency is not selfish commercialism for the physician; it is appropriate action in self defense; it is meeting change with change, as a matter of economic necessity.

It is a trite saying that physicians are poor business men. In fact, it has been said so often, with the physicians themselves readily pleading guilty to the charge, that none who reads here would be jarred one whit by a repetition of the accusation. We refrain, therefore, from repeating it and ask only the privilege of pointing out in these discussions some few points where improvement in system and method might be to the physician's advantage.

We are inclined to come to the defense of the doctor of medicine, in the general harangue about his hopeless business propensities, and say that a survey of the habits and traits of other groups of citizens indicate that physicians by no means have a corner on poor business acumen. Even many so-called "business men" are very "unbusinesslike" in the pursuit of their business endeavor. One has only to recall the many casualties among his own business acquaintances to confirm this statement. It is a gross misconception to assume that all, or even the dominant part, of business enterprises follow good business

THIS is the first of a series of articles on "Office Problems of the Physician" which will be presented in Volume 35 of The Ohio State Medical Journal.

In the accompanying article, Mr. Stanley R. Mauck, who has kindly consented to write the series for The Journal, discusses in a general way the business aspects of the practice of medicine and forecasts some of the specific problems with which he will deal in subsequent articles.

Mr. Mauck is an alumnus of Ohio Wesleyan University and holds a master of arts degree from Harvard University, Department of Economics. He is a resident of Columbus where he serves as executive secretary of the Columbus Academy of Medicine and as director of the Columbus Bureau of Medical Economics. Previously he operated a professional management service for physicians and served as branch and district sales manager, respectively, for two large rubber companies. Mr. Mauck knows this subject and The Journal is fortunate in having been able to persuade him to prepare this series of special articles.

principles. It is by no means axiomatic that commercial endeavor implies sound business procedure. And the guilt is all the greater for this group since success for these persons is predicated on sound business practices, whereas it is not uncommon for a physician to have the world's worst setup in his office and yet be an outstanding success in his profession.

It may be somewhat consoling to the physician, therefore, to realize that he is not alone in his shortcomings as a business executive. After all, he has been educated and trained solely as a professional man, and the "business side of medicine" rightly deserves only secondary emphasis in his practice. It is a matter of growing opinion, however, that the system of education for the medical student is incomplete when it graduates a highly trained scientific practitioner who has had not the slightest bit of coaching or instruction in even the most academic problems relating to business of rendering service to mankind. And yet the successful management of a present-day medical practice demands the correlation of professional skill with intelligent direction of office procedure. The physician usually has little or no background for a proper appraisal of the importance of this relationship. Whatever may be his aversions to the sordid economic consideration involved in his professional pursuits, he, however, reflects only the same characteristics that apply, quite generally, to those in other professional classifications. Of the lawyer, the professor, and other professional men, it may be said that, as a group, they also are "poor business men". In appraising the physician, therefore, let's get our proportions straight and evaluate him for what he is, **a professional man.** Let's not try to apply too literally a yardstick of measurement that constitutes an acid test even for many of those who are more properly guaged by such a standard.

REMEDIES MUST BE PRACTICAL

This is not to be interpreted as an attempt to justify or condone some of the inexcusable, haphazard and slipshod procedure of which too many physicians are guilty. Rather, we submit this explanation to indicate a clear understanding of the fundamental reason for the physician's evident business laxness and to assure our readers that we shall be restrained in our remedial proposals. Laymen who are only superficially familiar with the physician's problems are prone to rail about his business shortcomings and imply that he ought to be different. Many "systems" and elaborate proposals are offered as a cure for the physician's poor business habits. It is our conviction, however, based upon several years careful study of professional office problems, that much of this material is too complicated and impracticable for the average office. Regardless of the recommended treatment for the physician's anemic business blood stream, we can't make him over. He is still a professional man—a physician—**and should remain one.** Were he a better business man, likely he would be less of a physician. Too great an emphasis on the business side of practice—an absorption in the routine setup of records, reports, statistics, etc.—however important, may distract his attention to the detriment of his professional accomplishments. An outstanding example is the case of a certain physician of recognized capabilities, who annoys his patients with non-essential minutiae in case histories and slaves in his office to control an elaborate system of bookkeeping and other records. He is "sold" on system, but system has become his handicap. To "reform" the poor-business-man physician is a dubious objective; in doing so, even if it were possible, we might detract from the usefulness of a good physician. Out of our experience in dealing with the exasperating apathy of physicians toward the organization problems of their offices, we still try to be realists. Increased office efficiency unquestionably is badly needed and the situation is not hopeless if we seek **reasonable improvement** rather than a **complete reformation.**

CERTAIN BASIC PRINCIPLES

In presenting these articles we hope to make them as nearly as possible universal in appeal, relating equally to the rural and middle size city practice as well as to the metropolitan areas and applicable alike to physicians in any type of practice, whether general or a specialty. Our fear is that the subject matter presented, and the elemental character of the discussions, may contribute to a depreciation of the importance of the problems discussed. It is our contention, however, that the primary need for improvement in operating the business side of medicine relates to certain basic principles. Better control of these simple points of operation means better income for the physician and improved service to the patient. It is by no means necessary for the doctor to become an accountant or for him to install an elaborate system of bookkeeping in order to accomplish certain desired results. The average physician has no need for a setup on the same basis as the commercial organization. Where the need exists for an elaborate office control, such as in clinics, large group practice, etc., the situation usually is handled properly according to the special requirements. Definitely, however, there are **minimum standards** that should prevail in the office of every private practitioner. It is with these elemental problems that subsequent discussions will deal. We attempt no advice or instruction on heavy subjects such as investments, insurance, or how to draw your will, etc. The physician should consult local authori-

ties in whom he has confidence about his specific needs in these fields. Except for some very broad general principle, it would be difficult to present here any practical discussion of these matters that would be applicable to the offices of all physicians in general. Therefore, no attempt will be made to go beyond certain fundamental considerations that need frequent emphasis because of their almost universal neglect.

SERIES OF ARTICLES PLANNED

This series of articles on "Office Problems of the Physician", which is scheduled to appear in succeeding issues of *The Journal*, is definitely restricted in its scope by the subject itself. No attempt will be made to go beyond it into the more bewildering phases of economic problems in medical service. Each article will stress one or two vital points of business efficiency for every practicing physician. These discussions will aim to be specific and practical both in their analysis of the problems involved and the recommended handling. They will reflect opinions and comments based on actual experience of several years intimate association with physicians, first in the relationship of personal business management for a group of physicians wishing full direction of their office operations, and subsequently as Executive Secretary of the Columbus Academy of Medicine and Director of the local professionally-controlled medical Business Bureau. From this vantage point we hope to emphasize some of the common weaknesses of the physician in his business relations with patients, based on personal observation, and to offer constructive suggestions that some may find helpful. We shall confine ourselves to proposals that are known to work—suggestions that actually increase the physician's remuneration and at the same time promote good will and better patient-physician relationships. The two results are not incompatible.

Next month the subject will be "Statements"—a simple procedure that is grossly mal-handled in almost every office, yet one that is more directly responsible for collection results than any other single factor.

Next Month: "Statements".

Plans for Post-Collegiate Assembly

The medical alumni and faculty of the Ohio State University College of Medicine will present the Sixth Annual Post-Collegiate Assembly at Columbus, March 2, 3 and 4, in honor of the 106th anniversary of the founding of the college. The whole faculty and three guest speakers will participate in the program. Further details will appear in an early issue of *The Journal*. All physicians are invited to attend this intensive course of postgraduate instruction.

Forum on Allergy is Arranged For Sunday, January 15, at Toledo

Physicians interested in allergy are invited to attend the North Central Forum on Allergy to be held at the Commodore Perry Hotel, Toledo, Sunday, January 15.

The meeting will open with an informal "get-to-gether" Saturday evening, January 14, at the hotel. Physicians planning to attend the forum are urged to arrive in time for this social session which may be the high-light of the meeting.

The program for the two sessions, Sunday, January 15, follows:

Morning Session, 10:00 A.M.

1. Food Allergy
   - "Diagnostic Measures", by Dr. Samuel M. Feinberg, Chicago; discussants, Dr. M. A. Weitz, Cleveland, and Dr. Sam Levine, Detroit.
   - "Value of Skin Tests in Diagnosis of Food Allergy", by Dr. George Waldbott, Detroit; discussants, Dr. Albert Zoss, Cincinnati, and Dr. I. M. Hinnant, Cleveland.
   - "Dietary Management of Food Allergy", by Dr. Jonathan Forman, Columbus; discussants, Dr. David M. Cowie, Ann Arbor, and Dr. George L. Lambright, Cleveland.
2. "Drug Hypersensitivity", by Dr. John H. Mitchell, Columbus; discussants, Dr. Barney Credille, Flint, and Dr. Frank Menagh, Detroit.

Luncheon—Crystal Room.

Afternoon Session, 2:00 P.M.

- "Preparation of Protein Extracts", by Dr. Milton B. Cohen, Cleveland; discussants, Dr. Leon Unger and Dr. Tell Nelson, Chicago.
- "Preparation of Plant Oil Extracts for Diagnosis and Treatment", by Dr. L. E. Seyler, Dayton; discussants, Dr. John Sheldon, Ann Arbor, and Dr. Wm. P. Garver, Cleveland.

(Papers limited to 10 minutes each; discussants limited to five minutes).

This meeting was planned to foster acquaintance and exchange of ideas of members of the Cleveland, Chicago, Michigan and Ohio Valley Society of Allergists. However, any physician, in good professional standing, who is interested in allergy is welcome.

Further information may be obtained by addressing Dr. Karl D. Figley, 316 Michigan Street, Toledo.

Canton—Dr. Carl A. Wilzbach, executive secretary of the Cincinnati Social Hygiene Society and new health commissioner of Cincinnati, recently conducted an institute on social hygiene sponsored by the Ohio Congress of Parents and Teachers at the Canton Y.W.C.A.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Telling the Public Is the Real Challenge the Profession Faces

During the past few months, the State Headquarters Office at Columbus has received numerous requests from various lay groups for a speaker on some phase of the general subject of current efforts to make medical care more readily available to all the people. So far, the State Association has been able to supply such speakers. Dr. Hein, the president, Dr. Smith, the president-elect, Dr. Forman, the editor, and others have given generously of their time to fill such engagements. Judging from reports following such meetings, the time and effort which they have expended have been productive of dividends. In other words, those who have heard them present the side of the medical profession have been impressed, have been enlightened, and have admitted that they have been given an entirely new slant on the whole question.

Also, it should be noted that Dr. McCormick, Toledo, a member of The Council, has been spreading the gospel, as it were, during his many jaunts here and there throughout the country as grand exalted ruler of the Order of Elks. Dr. McCormick seldom fails to put in some fine licks for the medical profession and against the socialization of medicine as he addresses gatherings of Elks and public meetings.

We mention this because we anticipate that such requests will be more frequent during coming months and that the profession must be prepared to do its part. The public wants to know about this question on which so much is being written and said. It would prefer, we believe, to be enlightened by members of the medical profession. If the profession doesn't do just that, someone else will. A few officers of the Association cannot shoulder the entire load. They must have volunteer help among the membership. Obviously, to do the job well, members must be well-informed, but it is a job which must be done. The Headquarters Office will gladly supply members with information. Much good ammunition will be found in *The Journal of the A.M.A.* and *The Ohio State Medical Journal* from time to time.

To supply physicians with ammunition for talks before lay organizations, luncheon clubs, etc., a pamphlet entitled, "Compulsory Health Insurance is Not the Answer!" has been prepared on authorization of The Council and a copy will be sent to each member with his 1939 membership card. Members should make use of this material which is in the form of an outline of a concise talk on the subject, supplemented with pertinent supporting data. The medical profession's views must be presented to the public—by physicians.

Taking an active part in the public relations campaign which the medical profession through necessity must carry on, is the challenge which confronts every physician during 1939. Will you do your part? You should—you must. It is time for the profession and physicians as individuals to quit being the proverbial ostrich.

In proportion as the structure of a government gives force to public opinion it is essential that public opinion should be enlightened.—George Washington.

It's So Easy To Overlook Simple Economic Facts

Not long ago we listened to an address by an educator at a meeting of one of Ohio's county medical societies. The chap had traveled a lot and he made some interesting observations regarding economic and social conditions in foreign countries.

Unfortunately, however, he did not follow the proverb that the shoemaker should stick to his last. Before he finished his talk, our speaker launched into a discussion of socialized medicine. There is where he made his mistake.

At the outset of his address, he had made a rather telling argument for the proposition that many of the problems which exist in some of the foreign countries are the result of over-population. In other words, an economic problem arising from the inability of the people to expand and to produce enough to provide themselves with a decent living.

When we got to the subject of socialized medicine, he forgot about economics entirely, citing statistics which he claimed show that so many millions of people in the United States are not receiving adequate medical attention and concluding that medicine must be socialized to remedy this condition.

Some facts which our speaker forgot to mention (we are not sure he knows about them) were the following:

1. Inadequacy of nutrition is responsible for many cases of deficiency diseases in children; for

increased severity of much illness and for retardation in recovery.

2. Approximately 40,000,000 people in the United States are members of families with annual incomes of less than $800.

3. Approximately 20,000,000 of the above group now are receiving some financial assistance from government and in the event of illness must look to government to finance medical care.

These are cold-blooded economic factors. Many others could be cited. Too often values accruing from improvement of environment are overlooked by those who start out to make a case for state medicine.

Is this the problem of the physician? As citizens, yes; as doctors, no.

Has anyone a right to blame physicians for a situation where one-third of the people are living on one-half the minimum income necessary for an adequate standard of living? No.

Will medical attention, under whatever system or program which may be devised, correct these basic flaws in our social and economic structure? No.

Should speakers discuss a question of such importance without having complete data in hand and without dealing consistently with the subject? We believe not.

Is it the function of physicians to give the public the correct picture and not permit others to befog the problem? It certainly is—the sooner the better.

Were we to be directed from Washington when to sow and when to reap we should soon want bread. Our county is too large to have all of its affairs directed by a single government.—Thomas Jefferson.

If Members Will Help The Journal Can Make More Progress in 1939

With this issue, *The Journal* starts the thirty-fifth year of its existence. Those who play a part in producing it each month are hoping that they will be able to give the members an even better journal than in the past. To those who have contributed to the columns of *The Journal* during the past year, we wish to publicly express our sincere appreciation. They are really the ones who have given the publication a standing and a reputation.

We hope that many more members will join our list of contributors during the coming year. Members of the Ohio State Medcal Association should realize that *The Ohio State Medical Journal* is their journal. We welcome suggestions and criticism. We do not intend to bore the members with a questionnaire but we would like to know what the members think of *The Journal* and how we can make it of greater service to them.

During the coming year we hope to keep the news section up to date and filled with articles of economic and legislative developments of interest to the profession. If the members ever need to be thoroughly familiar with such matters, now is the time. Obviously, time and space will be wasted unless the members read the material published. We urge county society secretaries to flood us with news about society activities and news about the activities of individual members. Each member can help us immensely if he will do so.

The world has been cursed in the last thirty years by people who had abstract ideas and tried to make society fit them.—Dorothy Thompson.

It May Be News To Most of You, Or Is It?

Lo the New Year . . . with Congress and the General Assembly ready to grind out the customary number of good, bad and indifferent statutes . . . Wonder what the future holds for medicine? . . . Also wonder how many members have been foresighted enough to realize that Congressmen and State Legislators appreciate a slap on the back and have their ear to the ground, trying to interpret the reactions of constituents to pieces of proposed legislature . . . now is the time to build the bridges . . . not after the deluge arrives. As Raymond Clapper puts it: "You lead in a democracy instead of drive". . . Will medicine lead? . . . it can if it will . . .

Surgeon General Parran writes that another quarter of a million lives could be saved annually "by using well-tried and thoroughly proven methods" . . . Presume he means methods of public health administration . . . Wonder what would happen if everybody had enough of the right kind of food, a decent abode, a living wage and other environments which contribute to health and happiness. . . .

Whiting Williams, writer and industrial authority, warns that "Europe makes it plain that all any government has to do to persuade its citizens to demand a dictator is gradually to discourage enterprise while encouraging more dependence upon itself" . . . which is a far cry from the alleged famous (or infamous) remark of Harry the Hop to one of his playmates about spending and spending, taxing and taxing, and electing and electing . . . made, incidentally, before the election on November 8. . . .

As usual the notoriously superficial Jay Franklin swings and misses . . . Because the Medical

Society of the District of Columbia has announced a prepayment medical service plan, Franklin in his syndicated column intimates that the medical profession is about to back down on its opposition to the HOLC group health bureau for Federal employes . . . forgetting entirely that one is a bureaucratic, politically-manipulated scheme financed in part with public funds and that the other will be a private enterprise under sound medical guidance. . . .

McKesson and Robbins stockholders probably rate Barnum as a piker . . . Had us scared for a minute after Coster paraded those medical degrees which he didn't have . . . Even Cabot won't be able to blame the rape of M&R on the medical profession, we imagine . . . though he may try it . . . The country still is full of suckers . . . may fall for the socialization of medimine bunk unless somebody uncovers the Costers in the outfits peddling their propaganda hither and yon. . . .

Movement for centralization of poor relief administration in Ohio on a county-wide basis gains momentum . . . a step in the right direction . . . medical profession now has to bargain with a dozen different agencies, getting what one usually gets at a bargain sale . . . some constructive changes in the relief setup quite probable during next session of General Assembly . . . Don't let anyone tell you relief is the only thing which is keeping Federal expenditures at an all-time high . . . thirty per cent of Federal taxation today is used for new functions of government not in existence 10 years ago and in no way connected with relief and unemployment. . . .

Add famous sayings: "I read *The Journal* each month from cover to cover" . . . which reminds us that Volume 34 (1938) of *The Ohio State Medical Journal* contained 1,416 pages, largest in its history . . . which also reminds us to remind you that the advertisers help pay the freight and deserve your patronage. . . .

Four months until the Annual Meeting at Toledo . . . better get ready to attend . . . looks as if the program will be even superior to those of the past few years . . . Newest member of the Ananias Club is Malcolm T. McIntyre, D. C., Cincinnati, who opines that "even under minimum standards, chiropractors receive comparatively more training today than do practitioners of any legalized healing system" . . .

Scores of medical societies (several in Ohio) are working on prepayment medical service proposals . . . the Coordinating Committee of the State Association is acting as a clearing house in Ohio . . . the going is tough . . . some new problem pops up almost daily . . . don't expect a foolproof development tomorrow or the next day . . . it's a job that must be done thoroughly or the grief will be terrific . . . Incidentally, have you paid your 1939 dues? . . . better do it now . . . there are more reasons now than ever before for sticking together . . . a member is not a member unless his dues are paid . . .

Time marches on . . . people are going to be sick during 1939 as in 1938 . . . doctors are going to be needed . . . many will be called, few will shirk their job . . . to those who maintain their professional prestige, give value received, and strive to improve their knowledge of the art and science of medicine . . . a New Year's toast.

Are you devoting sufficient of your energies toward the success of your medical organization. . . . You may have been a parasite formerly living off the bounty of the fruits that medical science has garnered for humanity, but if you do not become active in your organization and active in governmental affairs generally, the whole of society as well as yourself, will suffer.—Henry A. Luce, M.D., Detroit.

First Series of Regional Postgraduate Lectures Ends in Blaze of Glory

Final session of the first year's series of Regional Postgraduate Lectures was held on December 15. This five-year program in postgraduate education was launched in October, 1937. Lectures have been presented in five different sections of the state. Sixteen different subjects have been covered, the lectures totaling 80. Sixty-six different members of the Association have given the lectures. Counties numbering 77 have been included in the various regions. The number of members residing within convenient driving distance of the sessions have totaled approximately 3,297. Total attendance at the 40 sessions which have been held was 4,549.

To say that these sessions have been exceedingly beneficial is putting it mildly. Like Topsy, they have grown and grown—in popularity. The subjects selected by the Committee on Education and Sub-Committee on Regional Postgraduate Lectures seemed to meet with the approval of those who were fortunate (also wise) enough to attend. In general, the lecturers did themselves proud. A few were a bit too text-bookish, failing to hammer home practical points. However, in the final analysis, the committees were quite fortunate in their selections of speakers. At this point, it should be noted that all lecturers sacrificed considerable time in taking part in the Regional Lectures and received no compensation except the appreciation of their listeners. To them the membership owes a vote of everlasting gratitude.

So successful was the first year's series that

The Council has gladly consented to underwrite a second year's series during 1939. The Committee on Education and its sub-committee expects to meet shortly to make plans for the 1939 sessions. There will be different subjects and necessarily different lecturers in many instances. Experiences have shown where improvements can and should be made. Before long those who attended the lectures will be requested to express opinions and offer suggestions. Places and dates for the new series will be announced at the appropriate time.

At long last, the Ohio State Medical Association has a postgraduate program worthy of the name. Those who supported it so well during its infancy deserve much credit for its success, together with those who presented the lectures, the hard-working local committees which had charge of details and arrangements, and the committees which did planning. In our opinion, this was a venture which deserves a place among the outstanding accomplishments of the State Association during 1938.

Laymen are seeking the exact truth and should receive the truth. Each one of us is potentially the county medical society, and the foundation upon which the medical profession stands is each individual doctor, as seen through the eyes of the layman.—Bulletin, Oklahoma County Medical Society.

Don't Miss the New Series of Articles on Office Procedure

Mr. Stanley Mauck, executive secretary of the Columbus Academy of Medicine and director of the Columbus Bureau of Medical Economics, has kindly consented to prepare a series of articles dealing with the business phases of the practice of medicine for the 1939 volume of *The Journal*. The first of the series will be found elsewhere in this issue. Mr. Mauck has had considerable experience in assisting physicians on office procedure, collections, etc. He speaks from experience and with authority. We are anticipating that his articles will be instructive as well as interesting. Advice of this kind certainly is appropriate at this time when physicians are beginning to learn more and more that they must conduct their business affairs in a systematic manner. If any member would like to have Mr. Mauck write about some specific subject in this field, just drop us a line and we will relay the suggestion to him. Don't miss this excellent series which starts in this issue.

Civilization's greatest handicap always has been mankind's inability to reject any fool idea that is preached long enough.—Buffalo News.

Spotlight Is Turned On Medical Program of Farm Security Administration

We recommend to our readers the article, "Rehearsal for State Medicine", published in the December 17, 1938, issue of *The Saturday Evening Post*.

It is a review of the medical program of the Farm Security Administration which in the words of the authors, Samuel Lubell and Walter Everett, "has brought together some 3,000 country doctors and more than 100,000 families in twenty-odd states; has given them a chance to show what would happen if a health-insurance law were enacted for them tomorrow."

Ohio is referred to several times in the article. In one place, the authors erroneously state that Ohio belongs to the group of states which has worked out a FSA medical program where physicians agree to furnish regular home and office care for FSA clients for a full year. We cannot speak for the other states in the group referred to, but we do know that the county medical societies in Ohio which are cooperating with the FSA have been very careful to avoid the yearly contract pitfall. In such counties, when the client's loan for medical care has been expended, the attending physician may exercise his own discretion as to whether he will continue to render service until another loan can be obtained by the client. In other words, there is no contract in Ohio between physician and client or between physician and the FSA. The Ohio program is not insurance. There is no pooling of funds. It is simply a procedure where the FSA client borrows from the government, the same as he would borrow from a bank if he could obtain credit, a sum of money to be used by him in reimbursing physicians for medical attention for himself and his family. He has free choice of physician. The relationship between client and physician is the same as that which exists between patients and physicians in private practice.

Strictly speaking, the FSA medical program in Ohio is not health insurance. Theoretically, it is not subsidized medical care and won't be as long as FSA clients pay back the money which they have borrowed. We are not sure the authors have sufficiently stressed this point in their article.

FSA medical programs have not been in operation long enough in Ohio to provide enough data and experience upon which to base a fair criticism. Within another month or two, it may be possible to make some interesting observations.

The authors of the *Saturday Evening Post* article have made some pertinent general comments about the venture of the FSA into the field of providing medical service. The criticisms which they list are applicable to all medical service programs conducted on a mass basis and

especially those where there is even a semblance of governmental control and which call for unlimited service at a fixed price.

The following is quoted from the conclusion of the article:

"Voluntary health insurance programs can be set up and kept going, and the medical care provided to help meet a real need among the low of income. Against the good must be weighed dangers, of which these are a few:

"Abuse of patient and the doctor seems more of a menace than generally appreciated and, unless checked, will feed on itself. Whatever sums are made available will be used up—Doctor Williams could report no surpluses—and where prorata limits are imposed, conscientious physicians stand to lose more than their less scrupulous compatriots. Continued abuses may lead to publicity drives which will invade the traditional privacy of doctor and patients, and perhaps also lead to stricter governmental control.

"Estimates of medical costs and needs are likely to remain elusive. Various medical groups will clamor for a place in the health insurance sun, aggravating the conflict between them and organized medicine.

"Although quality medical service can be maintained at a relatively low cost for a time on the momentum of the past—accumulated skill and capital—eventually a health insurance program for any group must relate itself to the fees prevailing for other groups if standards of service are to be maintained."

Court Holds Industrial Commission Can't Require Signing of Waiver Clause

Signing of a waiver of the provisions of Section 11,494, General Code of Ohio, which protect as privileged the communications of patient to physicians, cannot be required by the State Industrial Commission as a condition precedent to the consideration of an application for Workmen's Compensation, the Ohio Supreme Court held on December 14 when it rendered judgment in the case of the State, ex rel., Galloway, Appellee, v. Industrial Commission of Ohio Appellant. (134 O. S., Ohio Bar, Vol. Eleven, No. 39, page 496).

In other words, under this decision, the State Industrial Commission cannot refuse to consider a claim for compensation should the claimant refuse to subscribe to the waiver clause printed on official forms used in making application under the Workmen's Compensation Act.

Bacteriologists Meet

Speakers at a recent meeting of the Ohio Society of Bacteriologists at Western Reserve University School of Medicine, Cleveland, included: Dr. Merlin L. Cooper, associate professor of pediatrics at the University of Cincinnati College of Medicine and Dr. N. Paul Hudson, professor of bacteriology at Ohio State University College of Medicine. Dr. James A. Doull, professor of hygiene and public health at Western Reserve is president of the society.

When You Get This, Put It To Work

Every member of the Ohio State Medical Association will receive with bis 1939 membership card an outline of a suitable speech before lay groups, entitled "Compulsory Health Insurance Is Not tbe Answer!"

Never in the history of medicine have physicians been receiving so many requests to present the economic side of medicine at public meetings. No physician interested in maintaining his professional career on a private basis can afford to pass up any opportunity to express the physician's viewpoint on these questions to the public—and the public really wants to know the physician's viewpoint.

Appreciating that many physicians do not have tbe time or facilities to whip such a talk into shape, The Council of the State Association authorized the preparation of this outline for distribution to members. Read it over. Amplify the points made, from your own files. Emphasize them from your own experience. Express the thoughts in your own words. Tben put it to work. Don't wait for an invitation to give the talk. See the chairman of the program committee or proper officer of your luncbeon club, P.T.A., Women's Club, and other sucb organizations, and volunteer to "spread the gospel".

You believe that "Compulsory Health Insurance Is Not The Answer"—but what you believe will not make much difference unless the public feels the same way about it.

Surgeons Pick Meeting Dates

The International College of Surgeons, with the United States Chapter of that body, will hold its Assembly in New York City at the Hotel Roosevelt on May 22, 23 and 24. Dr. Edward Frankel, Jr., 217 East 17th St., New York City, has been appointed general chairman of the Assembly. Physicians interested in presenting scientific exhibits should communicate with Dr. Frankel. Dr. André Crotti, Columbus, is International President of the College, and Dr. Fred M. Douglass, Toledo, is President of the United States Chapter.

Toledo—Dr. Sidney McCurdy, supervisor of the medical section of the State Industrial Commission, spoke on "Medical Phases of the Workmen's Compensation Act" at a recent meeting of employers. sponsored by the State Division of Safety and Hygiene and the *Toledo Blade*. Dr. Barney J. Hein, President of the Ohio State Medical Association, was chairman of the meeting.

State Medical Board Examinations Taken by 126 Applicants at December 7-9 Meeting

FIFTY-ONE medical school graduates took examinations for licenses to practice medicine and surgery in Ohio, at the mid-winter meeting of the State Medical Board, December 7, 8 and 9, at Columbus. Included in this number were 22 graduates of foreign medical schools, of whom three were American citizens.

There were four applicants for licenses to practice osteopathy and surgery. Certificates of limited practice were sought by 19 mechanotherapists, 9 chiropractors, 1 electro-therapist, 5 naprapaths, 2 cosmetic-therapists, 5 chiropodists and 30 masseurs.

Results of the examination will be announced at a meeting of the State Medical Board to be held in Columbus, January 10.

The following questions were asked those who took the medical and surgical examinations:

ANATOMY

1. Describe upper half of humerus, locating attachments of the muscles.
2. Describe the mandibular division of the trigeminal (5th) cranial nerve.
3. Describe the duodenum including its position, relations, blood supply and lymph drainage.
4. Give origin (gross) of the inferior vena cava and list all its tributaries.
5. Locate and bound the femoral ring. Describe the femoral canal.

PHYSIOLOGY

1. State the physiological nature of nerve impulses.
2. Describe the effects of asphyxia on respiratory movements.
3. What is the most generally accepted theory of the cause of cardiac pain?
4. Discuss basal levels and physiological variations in white blood cells.
5. What are the effects of intractable and prolonged tympanites?
6. With what clinical conditions is polyphagia associated?
7. Describe the hypoglycemic syndrome.
8. Draw diagrams illustrating the use of three types of physical levers in the body.
9. Give an example of the purposive character of reflex action.
10. Describe the static righting reflexes in man.

PATHOLOGY

1. Discuss the use of vaccines for upper respiratory infections. How would you select or prepare the selected type?
2. What tests would you use in insuring the best results from urinary antiseptics, and why?
3. Describe the pathology of a tuberculous area in the lung.
4. Describe the changes that have taken place in a sclerotic artery.
5. Describe the microscopic picture of a well marked case of chronic glomerulo nephritis.
6. What are the changes in a joint in hypertrophic arthritis?
7. What are the essential differences between benign and malignant tumors?
8. What frequent diseases are traceable to the milk supply and discuss the objectives of pasteurization.
9. Discuss the place of the family physician in cooperation with school authorities in an outbreak of diphtheria in a school in a small community.
10. Discuss the legal rights and restrictions in prescribing narcotic drugs.

DIAGNOSIS

1. Give signs and symptoms of measles and exfoliative dermatitis.
2. Give signs and symptoms of acute appendicitis and lobar pneumonia on right side.
3. Differentiate amoebic dysentery and typhoid fever.
4. Differentiate lung abscess and bronchiectasis.
5. What condition is associated with Adams Stoke's syndrome?
6. Give signs of paresis and tabes dorsalis.
7. Give symptoms of peptic ulcer.
8. What disease gives symptoms of scanning speech and nystagmus?
9. Give signs of acute progressive myelitis.
10. Give physical findings in hemiplegia, left side.

PRACTICE

1. A patient returning from a late summer motor trip, complains of headache, diarrhea and slight fever of ten days duration—what would you suspect and what other signs would you look for? How establish a diagnosis?
2. Give three possible terminations of arterial hypertension and upon what sign would you base the most probable in a given case?
3. Discuss undulant fever: the etiology, usual source in this country, symptoms and treatment.
4. Give the symptoms of suspected coronary occlusion and how establish the diagnosis?
5. Give the symptoms of Addison's disease with treatment.
6. Give the usual etiology of enuresis and treatment.
7. How would you recognize pyloric stenosis in a recently born infant?
8. How would you manage a case of acute diarrhea in a two year old child?
9. Enumerate the most common symptoms of schizophrenia. Give the clinical course of a typical case.
10. Name the most frequent organic psychoses and state the most common mental symptoms characteristic of the entire group.

MATERIA MEDICA
(Homeopathic)

1. What is the pulsatilla type of patient?
2. Describe the baby for which you would prescribe calc carb.
3. Give remedies ordinarily used in colitis.
4. What remedies are indicated in pneumonia? Give indications for Phos.
5. Give indications for (a) merc. cor. in diarrhoea (b) colocynth.
6. Give symptoms indicating gelsemium.
7. Differentiate Bryonia and Rhus Tox in rheumatism.
8. What remedies might be indicated in a blood stream infection?
9. What remedies would be indicated in Eclampsia?
10. Give indications for arsen. alb. and for aconite.

MATERIA MEDICA
(Regular)

1. Aminophylline: physiological action, use and dose?
2. Classify drugs employed as depressants to the brain with example and dose of each.
3. Name two drugs which may be employed as secretory stimulants. Two as secretory depressants. Give physiological action and dose of each drug.
4. List the remedies with dose you would employ in cardiac decompensation, auricular fibrillation and heart block.
5. List four conditions for which nitrites are used.
6. Name two genitourinary antiseptics and explain their action.
7. Name three remedies used to relieve edema and state how each produces its effect.
8. Give the indication and dose for three remedies you

would use in catarrhal jaundice and the physiological action of each.

9. Give dose and therapeutic use of apomorphine, tr. opium, morphine sulphate, camphorated tincure of opium and codein.

10. What remedies would you employ in pernicious anemia? Give dose and manner of administration.

OBSTETRICS

1. Give indications for use of forceps.

2. What should your obstetrical bag contain?

3. How would you determine the death of the fetus in utero? How manage the case?

4. Give your treatment and management of a case of excessive vomiting in pregnancy?

5. What is your anesthetic of choice in obstetrics? Give indications for its use.

SURGERY

1. Give the etiology, complication and treatment of osteomyelitis of skull.

2. Describe intra capsular fracture of the neck of the femur. Give treatment for same.

3. Give the symptoms of subphrenic abscess.

4. Discuss the significance of the heart in relation to the risk in major surgical operations.

5. Detail the management for the first forty-eight hours a patient with compound comminuted fracture of both bones of the leg.

6. How would you treat a depressed fracture of the vault of the skull?

7. State complications which may occur in fracture of ribs and treatment.

8. Give treatment of poisonous snake bite.

9. Give treatment of Pott's disease.

10. Give treatment of ischio-rectal abscess.

CHEMISTRY

1. Discuss the chemistry of bone. What factors influence its calcification?

2. State the general properties and mention the compound elements of protein.

3. Give detail of testing suspected stains for blood. Explain the chemistry of any reaction used.

4. (a) What is normal P. H. in urine compatible with health? (b) How can the P. H. value of urine be determined?

5. Give chemical antidote for poisoning from the following:

morphine	corrosive sublimate
carbonic acid	arsenic

SPECIALTIES

1. Diagnosis pyelonephritis and give complete management of a case.

2. Differentiate quinsy; tonsilitis; diphtheria.

3. Give treatment for acute otitis media.

4. Differentiate the eruption of scarlet fever; ivy poisoning; smallpox; syphilis.

5. Give treatment of corneal ulcer.

Philadelphia Postgraduate Institute

The Fourth Annual Postgraduate Institute of the Philadelphia County Medical Society will be held at the Bellevue-Stratford Hotel, Philadelphia, during the week of March 13, 1939. The subjects to be considered are those embraced by the terms, "Blood Dyscrasias and Metabolic Disorders". These will be further subdivided for convenience into 86 clinical lectures, with open forum discussions for each topic, delivered by as many individual specialists of national distinction. Further information may be obtained from Dr. Rufus S. Reeves, Director, Postgraduate Institute, 21st and Spruce Sts., Philadelphia.

Regulations Governing Licensing of Foreign Physicians in Ohio

Several inquiries have been received at the State Headquarters Office relative to the status of foreign physicians seeking licenses to practice in Ohio.

Section 1,272, Ohio General Code, requires a foreign applicant desiring licensure, to hold a diploma or license conferring upon him full right to practice all branches of medicine or surgery in the foreign country in which he obtained it, and of a standard approved by the State Medical Board.

Because of difficulty in evaluating the credentials of foreign physicians who wished to take the examinations, the State Medical Board on July 28, 1936, adopted the following resolution:

"Whereas, the Board finds it extremely difficult to obtain exact information to prove the equality in medical education at this time in foreign countries with that required in the United States,

"Be it Resolved, that in order to determine whether or not the diploma and license of graduates of medical institutions in foreign countries is of a standard approved by the Board, in each instance a graduate from a foreign country seeking to enter the Ohio examinations (or, if licensed in another state, seeking reciprocity with Ohio) shall be required to submit a complete transcript of all work done prior to graduation; and in case difficulty is experienced in evaluation, the Board shall require one year of internship in an approved hospital or one year of education in an approved medical school in the United States. Credentials of foreign applicants must be filed with the Secretary at least six months prior to an examination."

Foreign physicians who have obtained licenses to practice in states which have reciprocity with Ohio are eligible to receive licenses in this state without examination provided they received their licenses to practice in the other states following examination, and provided the foreign diploma or license confers the full right to practice in the country where it was obtained.

At the last session of the Ohio General Assembly a bill was introduced (H.B. 451,) which provided that a foreign applicant who met all other requirements, would be admitted to the Ohio examinations, "provided the foreign country from which the applicant comes will extend like privilege to physicians licensed to practice in Ohio". This bill passed the House, but was lost in the legislative shuffle in the Senate during the closing days of the session.

According to Dr. H. M. Platter, Secretary of the State Medical Board, the number of foreign physicians who have been licensed in Ohio in the past several years is as follows: 1933, 8; 1934, 7; 1935, 5; 1936, 10; 1937, 16; 1938, 8, following the June examinations. Nineteen foreign physicians took the recent December examinations.

In Memoriam

John W. Barger, M.D., Leesburg, Fla.; Ohio Medical University, Columbus, 1893; aged 78; died November 18. Dr. Barger formerly practiced at Ironton. He was a member of the Methodist Church. Surviving are his widow and a son.

Lucian Daniel Clark, M.D., Cleveland; Toledo Medical College, 1898; aged 72; died December 3. Dr. Clark practiced medicine in Cleveland for nearly 40 years. A first lieutenant in the Medical Corps of the U. S. Army during the World War, Dr. Clark was the founder of the Cleveland Heights Post of the American Legion. He was also a member of the Masonic Order. His widow, two sisters and two brothers survive.

Elmer Willard Coe, M.D., Youngstown; Ohio Medical University, Columbus, 1896; aged 68; member of the Ohio State Medical Association and Fellow of the American Medical Association; died November 16. Dr. Coe practiced in Geauga County for 7 years and in Youngstown for 35 years, where he was a member of the staff of St. Elizabeth's Hospital. He was a member of the Masonic Order and the B.P.O.E. Surviving are his widow, a son and two brothers.

William Joseph Colbert, M.D., Youngstown; Georgetown University School of Medicine, Washington, D. C., 1918; aged 44; member of the Ohio State Medical Association and Fellow of the American Medical Association; died November 28. A member of the staff of St. Elizabeth's Hospital, Dr. Colbert practiced in Youngstown for 20 years. He was a member of the Catholic Church. His widow, two sisters and a brother survive.

James John Conlon, M.D., Cuyahoga Falls; University of Michigan Homeopathic Medical School, Ann Arbor, Mich.; 1915; aged 54; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 2. Dr. Conlon practiced in Cuyahoga Falls for 17 years, and was a member of the St. Thomas Hospital Staff, Akron. Dr. Conlon had been a member of the Summit County Medical Society since April 5, 1921. He was a member of the Knights of Columbus and the Catholic Church. Surviving are his widow, two daughters, two brothers and four sisters.

John Thomas Craddock, M.D., Mackinaw City, Michigan; Ohio State University College of Medicine, 1925; aged 47; former member of the Ohio State Medical Association; member of the Michigan State Medical Society and Fellow of the American Medical Association; died November 15. Dr. Craddock practiced in Columbus for several years before locating in Michigan. His widow, a son and three sisters survive.

Samuel Solomon Danziger, M.D., Columbus; Wayne University College of Medicine, Detroit, 1916; aged 43; former member of the Ohio State Medical Association and the American Medical Association; died November 28. A native of Michigan, Dr. Danziger practiced in Columbus for the past five years, and previously was located in Detroit. During the World War, he was captain in the Medical Corps of the British Army, and served as head of a hospital in Archangel, Russia, for three years. Dr. Danziger was a member of Phi Delta Epsilon fraternity and B'nai B'rith. Surviving are his widow, his parents, a son, six sisters and three brothers.

David Handmacher, M.D., Cleveland; Cleveland-Pulte Medical College, 1898; Cleveland College of Physicians and Surgeons, 1904; aged 81; died November 28. Dr. Handmacher practiced in Cleveland for 45 years. He was a member of the Euclid Avenue Temple and the Masonic Order. His widow, two daughters, two sons and a brother survive.

Oliver Paxson Holt, M.D., Cincinnati; Miami Medical College, Cincinnati, 1886; aged 77; member of the Ohio State Medical Association and Fellow of the American Medical Association; died November 20. One of the original staff members of Christ Hospital, Cincinnati, Dr. Holt practiced there for 50 years. He was professor-emeritus of medicine of the University of Cincinnati College of Medicine. Surviving are two brothers, one of whom is Dr. George H. Holt, Cincinnati.

Charles Emmett Jelm, Ph.C., M.D., Akron; University of Cincinnati College of Medicine, 1912; aged 51; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; member of the American Board of Urology and the American Urological Association; died November 22. A member of the Summit County Medical Society since September 5, 1916, Dr. Jelm was a member of the Akron City Hospital Staff and consultant on the staff of St. Thomas Hospital. He was a native of Holyoke, Colorado. Dr. Jelm was a member of the A.K.K. and F.N.E. fraternities. Surviving are his widow, two sons and a daughter.

John Richard Lyon, M.D., Mt. Pleasant; Ohio Medical University, Columbus, 1895; aged 76; died November 21. Dr. Lyon was located in Mt. Pleasant for 28 years. He had previously practiced in Zanesville and Columbus. He was a member of the Grange and the Protestant Church. Surviving are his widow, a son and two daughters.

Frederick W. Mitchell, M.D., Cleveland; Chicago College of Medicine and Surgery, 1903; aged 70; died December 5. Dr. Mitchell practiced in Chicago and Cleveland for 35 years. Surviving are his widow, three daughters, two sons, one of whom is Dr. Frederick W. Mitchell, Jr., and a brother.

George Waller O'Grady, M.D., Rochester, N. Y.; Cleveland-Pulte Medical College, 1899; aged 63; former member of the Ohio State Medical Association and the American Medical Association; died October 28. Dr. O'Grady formerly practiced in Lancaster. Surviving are his widow, four sons, a daughter and a sister.

Clifton B. Olds, M.D., Chicago, Ill.; Hahnemann Medical College and Hospital, Chicago, 1905; aged 72; died November 1. Dr. Olds practiced in Chicago for several years, then came to Attica and practiced until 1927, when he returned to Chicago. His widow survives.

David Arch Rannels, M.D., Logan; Starling Medical College, Columbus, 1891; aged 72; died November 11. Dr. Rannells first practiced with his father, the late Dr. D. V. Rannells at McArthur, where he stayed for six years. In 1897 he located in Logan, where he continued until his retirement several years ago. A graduate of the U. S. Military Academy at West Point, Dr. Rannells served as a major and surgeon in the U. S. Army during the Spanish-American War. His widow and a sister survive.

Justin E. Rowland, M.D., South Euclid; Cleveland University of Medicine and Surgery, 1891; aged 74; died December 9. Dr. Rowland practiced in South Euclid for 47 years. Active in community affairs, he was the first president of the South Euclid Bank, former president of the Cuyahoga County Board of Education, member of the Kiwanis Club and a member of the South Euclid Charter Commission. He was a member of the Methodist Church. Surviving are his widow, five sons, including Dr. Guy A. Rowland, who was associated with his father, and five brothers, one of whom is Dr. Guy O. Rowland, Alliance.

Oscar Merle Shirey, M.D., Cleveland; Western Reserve University School of Medicine, Cleveland, 1903; aged 60; member of the Ohio State Medical Association, Fellow of the American Medical Association and member of the American Academy of Ophthalmology and Oto-Laryngology; died November 20. Dr. Shirey practiced in Cleveland for 35 years. During the World War he was a captain in the Medical Corps of the U. S. Army. A past president of the Cleveland Exchange Club, Dr. Shirey was a member of the Masonic Order and the Rotary Club. He is survived by his widow, a son, his mother and two brothers.

Joseph C. Steuer, M.D., Cleveland; Cleveland College of Physicians and Surgeons, 1895; aged 65; died November 25. A native of Hungary, Dr. Steuer practiced in Cleveland for 43 years. Surviving are his widow, a daughter, two sons, one of whom is Dr. Leonard Steuer, Cleveland, and two brothers, including, Dr. David Steuer, Cleveland.

E. R. Uthoff, M.D., Toledo; University of Cincinnati College of Medicine, 1937; aged 30; died December 11. Dr. Uthoff was serving his internship at St. Vincent's Hospital, Toledo. His parents, a sister and grandfather survive.

Walter B. Weaver, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1890; aged 70; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 14. A former demonstrator in bacteriology at Ohio Medical College, Dr. Weaver studied that subject in Europe in 1893. He practiced in Cincinnati for nearly 50 years, and from 1903 to 1904 was coroner of Hamilton County. Dr. Weaver was a member of the Cincinnati Club and the Curier Press Club. Surviving are his widow, and five brothers, one of whom is Dr. David E. Weaver, Cincinnati.

Marion Whitacre, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1899; aged 67; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 2. Dr. Whitacre practiced in Cincinnati for nearly 40 years. For several years he was instructor of pathology at the University of Cincinnati College of Medicine, and for 15 years was head of the X-ray department at Christ Hospital. During the World War, Dr. Whitacre was a captain in the Medical Corps of the U. S. Army. He was a member of the American Legion and the Masonic Order. Surviving are his widow, a son, a brother—Dr. Horace Whitacre, Tacoma, Washington, and a sister.

Andrew Bell Wilkie, M.D., Darrtown; Cincinnati College of Medicine and Surgery, 1902; aged 75. Dr. Wilkie practiced in Butler County for 34 years. During the World War he was a captain in the Medical Corps of the U. S. Army. His daughter, two brothers, and one sister survive.

John Henry Wilms, M.D., Cincinnati; Pulte Medical College, Cincinnati, 1902; aged 59; member of the Ohio State Medical Association, Fellow of the American Medical Association and the American College of Surgeons; died November 26. For several years Dr. Wilms was professor of anatomy at Pulte Medical College, and was formerly staff physician at Bethesda Hospital. During the World War he was a member of the Medical Corps of the U. S. Army. Dr. Wilms was a member of the Masonic Order. Surviving are his widow, his father, a son and two sisters.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

Officers of the Adams County Medical Society for 1939 are: Dr. S. C. Clark, Cherry Fork, president; Dr. L. H. Leonard, Manchester, vice-president; Dr. O. T. Sproull, West Union, secretary-treasurer; Dr. S. J. Ellison, West Union, legislative committeeman; Dr. Clark, Dr. Ellison and Dr. Leonard, members of committee on public relations and medical economics; Dr. R. C. Wenrick, Winchester, delegate.—O. T. Sproull, M.D., secretary.

CLERMONT

Clermont County Medical Society has elected the following officers for 1939: Dr. C. F. Barber, Felicity, president; Dr. J. A. Carter, Batavia, vice-president; Dr. J. M. Coleman, Loveland, secretary-treasurer; Dr. Thomas Longworth, Felicity, legislative committeeman; members of public relations committee—Dr. Allan B. Rapp, Owensville; Dr. O. C. Davidson, Bethel; Dr. Pearl Zeek Minning, Williamsburg, and Dr. Carter; Dr. F. H. Lever, Loveland, medical economics committeeman; Dr. C. F. Barber, Felicity, delegate; Dr. Coleman, alternate.—J. M. Coleman, M.D., secretary.

FAYETTE

Dr. Jonathan Forman, Columbus, editor of The Ohio State Medical Journal, gave an interesting talk on some of the current problems facing the medical profession and what medical organization proposes to do about them, at a meeting of the Fayette County Medical Society, Thursday, December 15, at Washington C. H.—J. F. Wilson, M.D., secretary.

WARREN

Dr. George W. Crile, Cleveland, spoke on "The Selection of Cases and the End Results in the Surgical Treatment of Essential Hypertension", at a meeting of the Warren County Medical Society, Wednesday night, November 23, at Franklin. The meeting was well attended and the guests enjoyed a turkey dinner and musical entertainment.

Officers of the society for 1939 are: Dr. E. C. Morey, Franklin, president; Dr. Roy C. Bock, Kings Mills, vice-president; Dr. James H. Arnold, Lebanon, secretary; Dr. A. D. Harvey, Lebanon, treasurer; Dr. J. A. Nock, Franklin, legislative committeeman; Dr. P. W. Tetrick, Mason, medical defense committeeman; Dr. C. J. Haarlammert, Loveland; Dr. Mary L. Cook, Waynesville, and Dr. Robert M. Blair, Lebanon, censors; Dr. N. A. Hamilton, Franklin, delegate; Dr. Frank L. H. Batsche, Mason, alternate.—Edw. C. Morey, M.D., president.

CLINTON

At a meeting of the Clinton County Medical Society, December 6, at Wilmington, the following officers were elected for the ensuing year: Dr. L. H. Fullerton, New Vienna, president; Dr. William L. Wead, Sabina, vice-president; Dr. R. H. Vance, Wilmington, secretary-treasurer; Dr. Frank A. Peelle, Wilmington, legislative committeeman; Dr. Robert Conard, Wilmington, delegate.—V. E. Hutchens, M.D., retiring secretary.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during December:

December 6—"X-ray Treatment of Diseases of the Blood and Blood-Forming Organs", by Dr. H. F. Plaut; discussant, Dr. Stanley D. Simon. "The Diagnosis of Epidural and Subdural Hematomata", by Dr. Joseph P. Evans and Dr. Josiah H. Smith; discussant, Dr. Frank H. Mayfield.

December 13—Under the auspices of the Cincinnati Obstetric Society. "Progress and Conservatism in Obstetric Practice", by Dr. Robert D. Mussey, head of the section on obstetrics, Mayo Clinic and professor of obstetrics, The Mayo Foundation Graduate School, Rochester, Minn.

December 20—Hospital Night. The following program of case reports and demonstration of patients was presented by the staff of Cincinnati General Hospital in the surgical amphitheater of the hospital: "Ruptured Uterus", by Dr. H. L. Woodward, Dr. Richard D. Bryant, Dr. Frederick Garber and Dr. John T. Fleming; "Gonorrheal Arthritis in a Child. Differentiation from Rheumatic Fever. Treatment with Sulfanilamide", by Dr. M. A. Blankenhorn; "Lobar Pneumonia; Serum Treatment", by Dr. James H. Ruegsegger; "Presentation of a case of Ayerza's Syndrome. Differentiation of Primary and Secondary Polycythemia, Treatment", by Dr. Eugene B. Ferris; "Sympathectomy for Hyperhidrosis of the Upper Extremities", by Dr. Louis G. Herrmann, Cincinnati; "Multiple Compound Fractures of the Upper and Lower Extremities Complicated by Gas Bacillus Infection. Result of Conservative Therapy", by Dr. John A. Caldwell; "Stab Wounds of the Heart", by Dr. Josiah H. Smith.—Bulletin.

New officers of the Academy are: Dr. Richard S. Austin, president; Dr. E. O. Swartz, president-elect; Dr. Robert E. Howard, secretary; Dr. Daniel J. Kindel, treasurer; Dr. Emil R. Swepston, chairman, legislative committee; Dr. Carl A. Wilzbach, chairman, public relations committee; Dr. Edward D. King, chairman, medical

economics committee; Dr. Swepston, Dr. Max M. Zinninger, Dr. Ralph Carothers, Dr. Otto J. Seibert, Dr. Swartz, Dr. Howard D. Fabling, Dr. Henry B. Freiberg, delegates; Dr. George Renner, Jr., Dr. Joseph C. Lindner, Dr. John W. McCammon, Dr. Daniel C. Rivers, Dr. Irving H. Schroth, Dr. Lloyd B. Johnston, Dr. William J. Topmoeller, alternates.—R. A. Swink, executive secretary.

HIGHLAND

Dr. P. T. Knies, Columbus, was guest speaker at a meeting of the Highland County Medical Society, Wednesday, December 7, at Hillsboro.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CHAMPAIGN

Officers of the Champaign County Medical Society for 1939 are: Dr. D. C. Houser, president; Dr. N. M. Rhodes, vice-president; Dr. F. R. Grogan, secretary-treasurer; Dr. Houser, delegate and legislative committeeman; Dr. M. C. Houston, alternate, all of Urbana.—F. R. Grogan, M.D., secretary.

CLARK

The annual election of officers of the Clark County Medical Society was held at Springfield, Thursday, December 1, with the following result: Dr. C. E. M. Finney, president; Dr. H. B. Elliott, vice-president; Dr. G. M. Lane, secretary; and Dr. F. P. Anzinger, treasurer, all of Springfield.—G. M. Lane, M.D., secretary.

DARKE

"Heart Diseases Commonly Met by the General Practitioner", was the subject discussed by Dr. R. W. Kissane, Columbus, at a dinner meeting of the Darke County Medical Society, Friday evening, December 16, at the Cul-Mor Tea Room, Greenville.—W. D. Bishop, M.D., secretary-treasurer.

GREENE

Dr. Stanley E. Dorst, associate professor of medicine, University of Cincinnati College of Medicine, spoke on "Chronic Hypoglycemia" at a meeting of the Greene County Medical Society, Thursday, December 1, at Xenia. The society adopted changes in its constitution recommended by The Council of the Ohio State Medical Association. Dr. C. G. McPherson presented the summary report of the A.M.A. Survey of the Need of Medical Care in Greene County. The society voted to purchase a lantern for the use of lecturers. The following new officers were elected: Dr. David Taylor, Yellow Springs, president; Dr. C. W. Miller, Osborn, vice-president; Dr. Donald F. Kyle, Cedarville, secretary-treasurer; Dr. Paul D. Espey, Xenia, legislative committeeman; Dr. H. C. Messenger, Xenia, delegate; Dr. C. G. McPherson, Xenia, alternate.—Donald F. Kyle, M.D., secretary.

MIAMI

The following officers for 1939 were elected at the annual business meeting of the Miami County Medical Society held at Stouder Hospital, Troy, Friday, December 2: Dr. G. E. McCullough, Troy, president; Dr. J. T. Quirk, Piqua, vice-president; Dr. G. A. Woodhouse, Pleasant Hill, secretary-treasurer; Dr. I. C. Kiser, Piqua, legislative committeeman; Dr. B. M. Hogle, Troy; Dr. Hugh Wellmeier, Piqua, and Dr. E. G. Puterbaugh, Tippecanoe City, committee on public relations; Dr. Woodhouse, delegate; Dr. H. W. Kendell, Covington, alternate.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

"Appendicitis; Special Reference to the Treatment of Complicated Cases", was the subject presented by Dr. Roy D. Arn at a meeting of the Montgomery County Medical Society, Friday evening, December 2, in the auditorium of the Fidelity Medical Building, Dayton. Discussants were: Dr. E. R. Arn, Dr. R. C. Austin, Dr. Arthur W. Carley and Dr. Walter M. Simpson, New officers of the society are: Dr. T. H. Dickinson, president; Dr. R. K. Finley, first vice-president; Dr. E. F. Pfanner, second vice-president; Mildred E. Jeffrey, secretary-treasurer; Dr. H. V. Dutrow, chairman legislative committee; Dr. C. D. Smith, chairman, public relations and medical economics committee; Dr. Dutrow, Dr. A. W. Carley, Dr. P. L. Yordy and Dr. C. J. Derby, delegates; Dr. G. C. Grout, Dr. E. M. Smith, Dr. M. R. Haley and Dr. T. K. Kirk, alternates.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

AUGLAIZE

Dr. H. M. Clodfelter, Columbus, spoke on "The Gall-Bladder, Appendix and Related Gastro-Intestinal Diseases", at a meeting of the Auglaize County Medical Society, Thursday evening, December 15, in the Community Library Room of the Post Office Building, St. Marys.—Chas. C. Berlin, M.D., secretary.

HARDIN

At a meeting of the Hardin County Medical Society, Thursday evening, November 17, Dr. J. D. Tillotson, Lima, discussed "Injuries Around the Ankle".—News clipping.

VAN WERT

Officers of the Van Wert County Medical Society for 1939 are: Dr. R. H. Good, president; Dr. J. R. Jarvis, vice-president; Dr. C. A. Morgan, secretary-treasurer; Dr. C. R. Keyser, legislative committeeman; Dr. Good, delegate; Dr.

Morgan, alternate, all of Van Wert.—C. A. Morgan, M.D., secretary.

WYANDOT

At a meeting of the Wyandot County Medical Society, Thursday, December 8, at Upper Sandusky, the following officers were elected for the ensuing year: Dr. F. M. Kenan, Upper Sandusky, president; Dr. F. M. Smith, Sycamore, vice-president; Dr. P. E. Drugenbolz, Carey, secretary-treasurer; Dr. C. B. Schoolfield, Upper Sandusky, legislative committeeman; Dr. J. Craig Bowman, Upper Sandusky, delegate; Dr. R. L. Garster, Upper Sandusky alternate.—L. Walter Naus, M.D., retiring secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

FULTON

Fulton County Medical Society has elected the following officers for 1939: Dr. C. F. Hartmann, Wauseon, president; Dr. A. M. Wilkins, Delta, vice-president; Dr. George McGuffin, Pettisville, secretary-treasurer; Dr. E. A. Murbach, Archbold, public relations committeeman; Dr. Wm. H. Maddox, Wauseon, medical economics committeeman; Dr. McGuffin, delegate; Dr. L. E. Botts, Wauseon, alternate.—Geo. McGuffin, M.D., secretary.

LUCAS

The Toledo Academy of Medicine presented the following programs during December:

December 2—General Meeting—"Diagnosis and Treatment of Cerebral Palsy", by Dr. Winthrop M. Phelps, Baltimore, Md.

December 9—Section of Pathology, Experimental Medicine and Bacteriology. "Mechanism of General Peritonitis and Indications for Use of Coli-Bactragen", J. E. Fuchutte, bacteriologist, Chicago, Ill., representing the Research Foundation of Toledo Hospital.

December 16—Medical Section. Symposium on "Peripheral Vascular Disease", by Dr. Paul Hohly and Dr. Frank C. Clifford.—Bulletin.

PUTNAM

At a meeting of the Putnam County Medical Society, Tuesday evening, December 6, at the Putnam House, Ottawa, Dr. Howard J. Parkhurst, Toledo, spoke on "Treatment of More Common Skin Diseases".—News clipping.

SANDUSKY

Dr. M. E. Goodrich spoke on "Treatment of Calcified Bursitis of the Shoulder", at a meeting of the Sandusky County Medical Society, Thursday evening, November 17, at Fremont.—News clipping.

WOOD

"Blood Dyscrasia", was the subject discussed by Dr. Bernard Steinberg, Toledo, at a meeting of the Wood County Medical Society, Thursday evening, December 15, at the Woman's Club, Bowling Green.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland and Cuyahoga County presented the following programs during December:

December 2—Clinical and Pathological Section. "Pancreatic Cyst. Newer Treatment", by Dr. C. R. Jablonoski; "Raynaud's Disease. Sympathectomy", by Dr. E. A. Mastics; "Head Injury. Treatment by Dehydration Routine", by Dr. F. A. Spittler and Dr. J. N. Wychgel; "A Case of Pernicious Anemia and Hyperthyroidism", by Dr. Harry V. Paryzek; "Summary of the Last Fifty Cases Bronchoscoped in St. Alexis Hospital", by Dr. F. W. Dickson and Dr. Fred Adelstein; "Familial Muscular Atrophy and Dystrophy", by Dr. A. T. Steegmann.

December 9—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "A Catheter for Bronchospirometry", by Paul W. Gebauer; "The Static and Dynamic Effort of the Heart in Clinical Hypertension", by Dr. George W. Wright and Dr. William R. Hallaran; "Requirements of Certain Animals for Nicotinic Acid", by T. W. Birch, Ph.D.; "Active Immunization Against Pertussis", by Dr. James A. Doull, Dr. Gerald S. Shibley, Miss Hulda Bancroft, Dr. Grace E. Haskin, Dr. J. E. McClelland and Miss Helena Hoelscher.

December 16—Downtown Academy Meeting. "The Management of the Common Complications of Pregnancy", by Dr. Fred D. Falls, professor of obstetrics and gynecology, University of Illinois College of Medicine, Chicago, Ill.—Bulletin.

ERIE

Officers of the Erie County Medical Society for 1939 are: Dr. H. L. Sowash; Dr. E. J. Meckstroth, vice-president; Dr. Ross M. Knoble, secretary-treasurer; Dr. H. N. Sarchet, chairman, legislative committee; Dr. H. W. Lehrer, chairman, public relations committee; Dr. P. N. Squire, chairman, medical economics committee; Dr. Knoble, delegate, and Dr. A. R. Grierson, alternate, all of Sandusky.—Ross M. Knoble, M.D., secretary.

LAKE

Lake County Medical Society has elected the following new officers: Dr. Morris G. Carmody, Painesville, president; Dr. Warren Payne, Willoughby, vice-president; Dr. Mel A. Davis, Painesville, secretary-treasurer; Dr. Benjamin Spencer

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Park, Painesville, legislative committeeman; Dr. V. N. Marsh, Painesville, delegate; Dr. Ben Fisher, Fairport, alternate.—Morris G. Carmody, M.D., retiring secretary.

LORAIN

Dr. F. A. Spitler, Cleveland, spoke on "Treatment of Head Injuries by Dehydration", at a meeting of the Lorain County Medical Society, Tuesday evening, December 13, at the Elyria Country Club. Organization matters were discussed by Dr. E. P. McNamee, Cleveland, Councilor for the Fifth District of the Ohio State Medical Association.—L. H. Trufant, M.D., secretary.

TRUMBULL

A joint dinner meeting of the Trumbull County Medical Society and the Trumbull County Bar Association was held at the Trumbull Country Club, Warren, Tuesday evening, November 15. William Butler, general counsel for the United States Casualty Company, New York, spoke on "Tort Liability".—News clipping.

Sixth District

(COUNCILOR: WM. M. SKIPP, M.D., YOUNGSTOWN)

ASHLAND

A dinner meeting of the Ashland County Medical Society was held at the Hotel Otter, Ashland, Friday evening, December 9. Dr. H. Wayne Smith, Ashland, discussed a case of primary pneumococcus. Three Mansfield physicians—Dr. Henry T. Stiles, Dr. B. M. Hathaway, and the resident at Mansfield General Hospital, presented a case of carcinoma of the stomach and gave an excellent discussion of the disease. The entire program was thoroughly enjoyed by the 16 members of the society who attended.

The following new officers were elected for the ensuing year: Dr. E. L. Clem, president; Dr. M. D. Shilling, president-elect. Dr. H. Wayne Smith, secretary-treasurer; Dr. H. M. Gunn, chairman, legislative committee; Dr. W. F. Emery, chairman, public relations committee; Dr. C. B. Meuser, chairman, medical economics committee; Dr. E. L. Clem, delegate; Dr. H. W. Smith, alternate, all of Ashland.—M. D. Shilling, M.D., retiring secretary.

PORTAGE

At a meeting of the Portage County Medical Society at Kent, Thursday evening, December 31, the following officers were elected for 1939: Dr. A. J. Silbiger, Atwater, president; Dr. H. S. Wendorf, Ravenna, vice-president; Dr. E. J. Widdecombe, Kent, secretary-treasurer; Dr. George J. Waggoner, Ravenna, legislative committeeman; Dr. W. B. Andrews, Kent, public relations committeeman; Dr. Silbiger, delegate; Dr. Wendorf, alternate.—E. J. Widdecombe, M.D., secretary.

RICHLAND

Officers of the Richland County Medical Society for 1939 are: Dr. Carl R. Damron, Mansfield, president; Dr. Wallace H. Buker, Bellville, vice-president; Dr. L. D. Bonar, Mansfield, secretary-treasurer; Dr. Chas. R. Keller, Mansfield, legislative committeeman; Dr. John S. Hattery, Mansfield, delegate; Dr. Frank X. Maxwell, Mansfield, alternate.—W. W. Peirce, M.D., retiring secretary.

STARK

A Symposium on Obstetrical Complications was presented by the Stark County Hospital Obstetrical Society, of which Dr. R. K. Ramsayer is president, at a meeting of the Stark County Medical Society, Thursday evening, December 8, at the Elks Club, Canton. Following is the program: "Some Considerations of the Heart, Lungs, Pancreas and Kidneys in Pregnancy", by Dr. John Scott, with discussion by Dr. E. S. Folk and Dr. C. A. LaMont; "Indications and Value of Sulfanilamide in Pregnancy", by Dr. Blanchard Antes, with discussion by Dr. K. E. Greenwalt and Dr. R. S. Rosedale; "Post-Partum Complications", by Dr. L. E. Leavenworth, with discussion by Dr. H. B. Weaver and Dr. C. E. Fraunfelter.—Clair B. King, M.D., secretary.

Seventh District

(COUNCILOR: C. W. KIRKLAND, M.D., BELLAIRE)

BELMONT

Belmont County Medical Society has elected the following officers for 1939: Dr. L. L. Liggett, St. Clairsville, president; Dr. Harry G. Harris, Martins Ferry, president-elect; Dr. C. W. Kirkland, Bellaire, secretary-treasurer; Dr. R. H. Wilson, Martins Ferry, and Dr. D. M. Creamer, Bellaire, legislative committeemen; Dr. C. B. Messerly, Martins Ferry, medical economics committeeman; Dr. Liggett, delegate; Dr. Harris, alternate.—C. W. Kirkland, M.D., secretary.

COLUMBIANA

At a meeting of the Columbiana County Medical Society, Tuesday night, November 1, at Lisbon, Dr. Seward Harris, county health commissioner, spoke on "Future Plans and Problems of County Health Organizations in Ohio".—News clipping.

COSHOCTON

Dr. Judson D. Wilson, Columbus, gave an address on "Treatment and Care of Crippled Children" at a meeting of the Coshocton County Medical Society, Tuesday, November 29, at Coshocton City Hospital. A general discussion

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RADIUM

of the problem followed.—J. C. Briner, M.D., correspondent for *The Journal.*

HARRISON

Officers of the Harrison County Medical Society for 1939 are: Dr. R. P. Rusk, Cadiz, president; Dr. James E. Thompson, Freeport, vice-president. Dr. F. Foster Dye, Cadiz, secretary-treasurer; Dr. H. E. Koepke, Cadiz, legislative committeeman; Dr. T. G. Scott, Cadiz, public relations committeeman; Dr. Anna B. Watson, New Athens, medical economics committeeman; Dr. James A. L. Toland, Jewett, delegate, and Dr. G. E. Vorhies, Scio, alternate.—James A. L. Toland, M.D., retiring secretary.

JEFFERSON

Dr. Silas O. Barkhurst, who has practiced medicine in Smithfield and Steubenville, for 50 years, was honored with a testimonial banquet by the Jefferson County Medical Society, Thursday, November 3, at the Fort Steuben Hotel, Steubenville. Dr. F. M. Slaughter, president of the society, was toastmaster. Rev. J. K. Leitch delivered the main address in which he lauded Dr. Barkhurst for his high professional ideals. Dr. Barkhurst was elected to honorary life membership in the society.—News clipping.

Eighth District

(COUNCILOR: E. R. BRUSH, M.D., ZANESVILLE)

GUERNSEY

"Complications Following Child Birth", was the subject of a talk made by Dr. Henry L. Wells, at a meeting of the Guernsey County Medical Society, Thursday noon, November 17, at the Berwick Hotel, Cambridge.—O. R. Jones, M.D., correspondent for *The Journal.*

On December 1, the society elected the following officers for the ensuing year: Dr. W. L. Denny, Cambridge, president; Dr. M. C. McCuskey, Senecaville, vice-president; Dr. C. C. Headley, Cambridge, secretary-treasurer; Dr. M. S. Lawrence, Quaker City, legislative committeeman; Dr. B. A. Souders, Cambridge, delegate; Dr. Paul O. Huth, Cambridge, alternate.—W. L. Denny, M.D., retiring secretary.

MORGAN

Dr. Frank J. Lacksen, Columbus, spoke on "More Common Skin Diseases" at a meeting of the Morgan County Medical Society, Tuesday evening, November 15, at the Kennebec Hotel, McConnelsville.—News clipping.

PERRY

Officers of the Perry County Medical Society for 1939 are: Dr. George C. Tedrow, Crooksville, president; Dr. James Miller, Corning, vice-president; Dr. F. J. Crosbie, New Lexington, secretary-treasurer; Dr. C. B. McDougal, New Lexington, legislative committeeman; Dr. O. D. Ball, New Lexington, public relations committeeman; Dr. J. C. McDougal, New Lexington, medical economics committeeman; Dr. H. F. Minshull, New Lexington, delegate; Dr. Edgar D. Allen, Crooksville, alternate.—F. J. Crosbie, M.D., secretary.

Dr. Ward D. Coffman, Zanesville, was guest speaker at a meeting of the society Friday noon, December 9, at the Park Hotel, New Lexington.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

PIKE

At a meeting of the Pike County Medical Society, Tuesday, December 6, at Waverly, the following officers were elected for the ensuing year: Dr. R. T. Leever, Waverly, president; Dr. M. E. Moore, Piketon, vice-president; Dr. A. M. Shrader, secretary-treasurer; Dr. Leever, legislative committeeman; Dr. I. P. Seiler, Piketon, public relations committeeman; Dr. Paul H. Jones, Stockdale, medical economics committeeman; Dr. L. E. Wills, Waverly, delegate, and Dr. R. M. Andre, Waverly, alternate.—A. M. Shrader, M.D., secretary.

SCIOTO

The annual banquet of the Hempstead Academy of Medicine was held at the Portsmouth Country Club, Monday evening, December 12. Speakers included Dr. Barney J. Hein, Toledo, President, and Charles S. Nelson, Columbus, Executive Secretary of the Ohio Medical Association, and Walter D. Gilliland, Portsmouth, world traveler. Other entertainment included music, stunts, and colored motion pictures of Portsmouth's Sesqui-Centennial Celebration. Dr. Clyde M. Fitch was toastmaster. The banquet committee consisted of Dr. A. P. Hunt, Dr. Frank Beeks, Dr. O. D. Tatje, Dr. Harry Rapp and Dr. Fitch,—W. M. Singleton, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

CRAWFORD

At a meeting of the Crawford County Medical Society, Monday night, December 5, at Galion, Dr. Kenneth C. McCarthy, Toledo, spoke on "Gas Anesthetics", and Dr. Maurice P. Cooper, Toledo, discussed "Intravenous Anesthetics, the Advantages and Disadvantages".—News clipping.

FRANKLIN

The following programs were presented by The Columbus Academy of Medicine during December:

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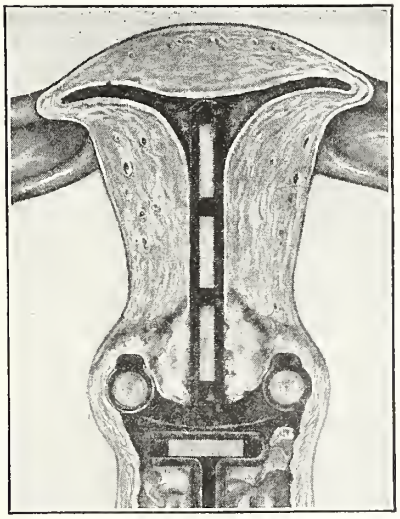
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December 12. Section in General Medicine (1) "Repair of Perineal Lacerations", (2) "Suspension of the Retroverted Uterus", with motion pictures, by Dr. Wayne Brehm.

December 19. Annual Banquet. "A Startling and All-Revealing Story of Conditions in Germany Today", by Dr. John Gelbert, noted German-American, author, foreign news correspondent, war pilot and physician.—Bulletin.

MORROW

Dr. C. C. Sherburne, Columbus, Councilor for the Tenth District, discussed various problems confronting the medical profession at a meeting of the Morrow County Medical Society, Tuesday, December 13, at Mt. Gilead.

The society elected the following officers for the ensuing year: Dr. E. C. Sherman, Cardington, president; Dr. C. S. Jackson, Mt. Gilead, vice-president; Dr. T. Caris, Mt. Gilead, secretary; Dr. R. L. Pierce, Mt. Gilead, treasurer; Dr. F. H. Sweeney, Mt. Gilead, public relations committeeman; Dr. J. P. Ingmire, Mt. Gilead, medical economics committeeman; Dr. F. M. Hartsook, Cardington, delegate, and Dr. Ingmire, alternate.—T. Caris, M.D., secretary.

ROSS

Dr. Frank J. Lacksen, Columbus, spoke on "Common Skin Diseases Met In General Practice", at a meeting of the Ross County Medical Society, Thursday evening, December 1, at Chillicothe.—News clipping.

Officers of the society for 1939 are: Dr. Warde B. Smith, Frankfort, president; Dr. George S. Mytinger, Chillicothe, vice-president; Dr. R. C. Bane, Chillicothe, secretary-treasurer; Dr. L. T. Franklin, Chillicothe, legislative committeeman; Dr. O. P. Tatman, Chillicothe, delegate; Dr. R. L. Counts, Chillicothe, alternate.—A. E. Merkle, M.D., retiring secretary.

UNION

Union County Medical Society has elected the following officers for 1939: Dr. Fred C. Callaway, Marysville, president; Dr. John Dean Boylan, Milford Center, vice-president; Dr. Harry G. Southard, Marysville, secretary-treasurer; Dr. Angus McIvor, Marysville, legislative committeeman; Dr. Southard, delegate, and Dr. Boylan alternate.—Fred C. Callaway, M.D., retiring secretary.

Springfield—"Socialized Medicine and Dentistry" was the subject discussed by Dr. D. W. Hogue, Councilor for the Second District of the Ohio State Medical Association, at a recent meeting of the Mad River Valley Dental Society at Bellefontaine.

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OBSTETRICS—Two Weeks Intensive Course starting March 13, 1939. Informal Course starting every week.

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Cincinnati U. Directors Put Stamp of Approval on Pellagra Study

Far-reaching benefits to human health resulting from special investigative study in pellagra treatment and prevention by Dr. Tom D. Spies, associate professor of medicine, and other members of the faculty of the University of Cincinnati College of Medicine, were reported to the University's Board of Directors at a meeting, December 6. The study will be continued for a period of two years beginning February, 1939, under the auspices of the John and Mary R. Markle Foundation, New York City.

The University directors appointed the following directors of service on the staffs of Cincinnati General Hospital, Hamilton County Tuberculous Sanatorium and Chronic Disease Hospital for 1939:

General Hospital—Dr. M. A. Blankenhorn, medical service; Dr. Mont R. Reid, surgical service; Dr. Frank M. Coppock, gynecologic division, surgical service; Dr. Gordon F. McKim, urologic division, surgical service; Dr. A. Graeme Mitchell, pediatric service; Dr. Henry L. Woodward, obstetric service; Dr. Emerson A. North, psychiatric service; Dr. Joseph A. Freiberg, orthopedic surgery service; Dr. Samuel Iglauer, oto-laryngologic service; Dr. Derrick T. Vail, ophthalmologic service; Dr. Elmore B. Tauber, dermatologic service; Dr. Sidney Lange, radiologic service; Dr. R. S. Austin, pathologic service; Dr. Lee Foshay, bacteriologic service; Dr. Albert P. Mathews, biochemistry service; Dr. Robert M. Schell, dental service, and Dr. Julien E. Benjamin, outpatient department.

Tuberculosis Sanatorium—Dr. H. Kennon Dunham, director, attending staff, and Dr. Alfred Friedlander, director, consulting staff.

Chronic Disease Hospital—Dr. Alfred Friedlander, director, medical service.

A check for $10,000 was accepted by the directors, representing a bequest from the late Mrs. Ida B. Rulison, creating a fund to aid needy and worthy medical students. Other gifts included: $1,000 from an anonymous donor to establish the Alice Outhouse Fund for psychiatric research at Longview Hospital; $300 from Mrs. Howard E. Wurlitzer to the department of physiology; $100 from an anonymous donor to be added to the Kuppenheimer Fund of the department of physiology.

Kent—For the first time in the history of the University, a faculty member—Dr. Elizabeth A. Liggett, university physician, was chosen 1938 Pigskin Prom sweetheart by the members of the football squad at Kent State University in appreciation of her regular attendance at games, and her efficient care of their injuries.

Annual Pneumonia Bill in U. S. About $75,000,000, N. Y. Survey Indicates

The average case of pneumonia in New York City costs $167.60, according to "A Study of the Economics of Pneumonia", conducted by Joseph Hirsch, research associate of the Committee on Research in Medical Economics, (*Public Health Reports*, December 9, 1938).

The study was compiled from the records of 625 pneumonia cases, in five hospitals, one home nursing service and home cases, in New York City. In each of the home cases, there were private physicians. Of the hospital cases, 400 were ward, 66 semi-private and 94 private. The average costs for semi-private cases came to about $225; for private cases, $267, as compared with the low cost for ward cases, $145.

Physicians' services were estimated at minimum rates, even though not actually paid for by ward patients. They constituted only 24 per cent of the total cost, with a somewhat higher percentage in semi-private and private cases.

Average cost of serum in cases where it was used, amounted to $70.

It is estimated that there are well in excess of 450,000 cases of pneumonia yearly in the United States, approximately 25 per cent of which are fatal. On the basis of this study, the annual bill for this disease in the United States is more than $75,000,000.

Mansfield—New staff officers at General Hospital are: Dr. F. J. Heringhaus, president; Dr. H. P. Peck, vice-president; Dr. F. M. Wadsworth, secretary, and Dr. C. R. Keller, treasurer.

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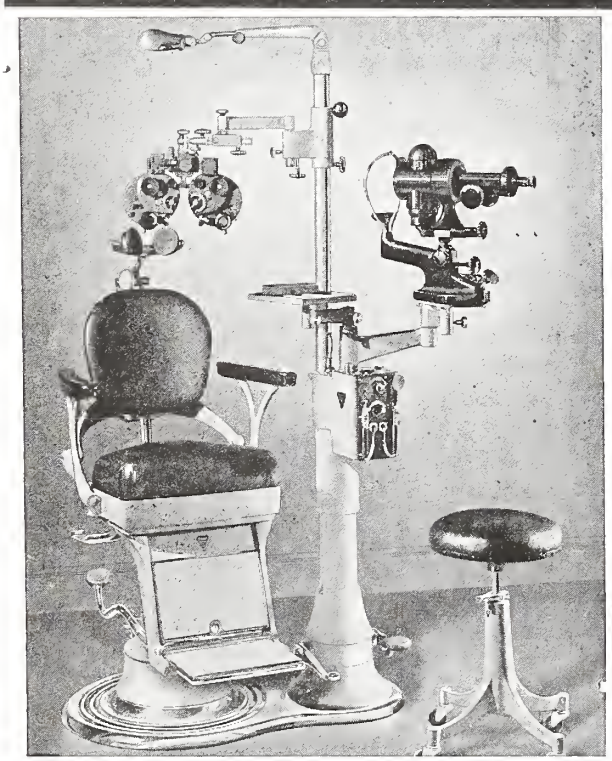
Mental Therapy, A Study of Fifty Cases. By Louis S. London, M.D., *Covic Friede, Inc., New York.* Two volumes, $12.50. In a clear lucid style Dr. London has made a definite contribution to the understanding of the relation of sexual perversion to neurosis and psychosis. The author in accordance with the best teachings of psychoanalysis re-emphasizes the dynamic approach and stresses the point that perversions are psychically determined and their explanation is to be found in proper antecedents in the individual's life. His studies indicate that perversions always fail to satisfy the libido and lead to a neurosis or psychosis. The volume has been already well received and represents a valuable addition to any library on the subject.

Medical Information for Social Workers. By William M. Champion, Editor. *William Wood & Co., Baltimore,* $4.00. Nine of our own members, all from the faculty of the School of Medicine of the Western Reserve University have contributed to this work presenting the indispensable facts for the social worker. It differs from most attempts of its kind in that it is what it purports to be and not another book on medical practice. Its editor is to be congratulated for accomplishing his purpose most adequately.

Practical Birth-Control Methods. By Norman Himes, Ph.D., and Abraham Stone, M.D. *Modern Age Books, New York,* $0.95. The best book to date on the practical aspects of countraception for the medical and allied profession has just appeared in a *Modern Age Book.* This is a thoroughly documented and carefully illustrated work of 254 pages bound in paper. It covers the legal, social, and medical aspects of the problem as well as the related subjects of abortion, the abortion racket, and the history of contraception from the earliest times.

Anus, Rectum, Sigmoid Colon. Diagnosis and Treatment. By Harry Ellicott Bacon, B.S., M.D., F.A.C.S., F.A.P.S. *Lippincott, Philadelphia.* This 804 page volume is a complete work on the subject, covering the anatomy, methods of examination, charts for differential diagnosis and a multitude of treatments for the pathological conditions of this region. The charts on differential diagnosis are of particular value. It is primarily a book for the operating proctologist

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It is now apparent that the vitamin C content of food at the time of consumption is conditioned, first, by the initial ascorbic acid content of the food at the time of harvesting, and second, by the treatment to which the food is subjected between the time of harvesting and the time of consumption.

The initial vitamin C level in raw foods has been found to depend on factors such as variety, maturity and growing conditions (2). Under usual conditions of food crop production, such factors are only partially subject to human control. However, the factors influencing vitamin C in foods from harvesting until consumption are capable of closer regulation by man.

For example, it is known that long storage at improper temperatures adversely affects the initial ascorbic acid contents of foods. Even at refrigeration temperatures raw foods may lose substantial amounts of vitamin C during storage. Rough handling—which causes rupture of vegetable tissue—is also conducive to vitamin C loss especially when followed by improper storage. Certain metals will catalyze vitamin C destruction and even commonly used home-cooking methods are attended by losses of this essential dietary factor (2).

Briefly, preservation of vitamin C in foods between harvesting and consumption is essentially a problem of preventing or reducing oxidation, either enzymatic or atmospheric. In addition, physical or solution losses must be minimized in preparation of the food for the table. It is pertinent to note that modern commercial canning procedures are well adapted to control both these chemical and physical losses of vitamin C (3).

The use of prime raw stock and quick transport to the cannery after harvesting; rapid inactivation of enzymes through heat treatment; and large scale automatic operations with minimal exposure to air, are basic practices common to all modern canning procedures. All serve to check oxidative losses of the initial ascorbic acid present in raw foods. In addition, during canning, the foods are cooked by the heat process while contained in the sealed can. The liquid within the can, therefore, retains vitamin C which has been removed from the food by solution.

Researches have shown that many commercially canned foods are to be listed among the most valuable contributors of vitamin C to the diet of the American people (2, 3, 4). Such findings demonstrate the effectiveness of modern commercial canning procedures in preservation to the highest practical degree of the initial vitamin C contents of foods.

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(1) 1932. Ztschr. f. Untersuch. d. Lebensmitt. 63, 1.
1933. J. Biol. Chem. 103, 687.
(2) 1938. J. Amer. Med. Assn. 111, 1290.
(3) 1932. Ind. Eng. Chem. 24, 650.
(4) 1938. J. Amer. Med. Assn. 110, 650.
1937. Bull. 19-L Nat'l. Canners Assn., Washington, D. C., 4th Ed.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-fourth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.

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as it deals mostly with surgical procedures. The author has confined in one volume the salient features of proctology.—R. I. Brashear, M.D.

The Big House of Mystery. By Patrick H. Weeks, M.D. *Dorrance, Philadelphia,* $2.00. The psychiatrist of Indiana State Prison makes a report of 18 years with that institution and gives an excellent picture of life behind the prison walls. The true story of the Dillinger round-up and the description of "the living death" and "the last mile" are the high spots of the book.

Broken Rhythm. By Dorothy Wagner, *Lippincott, Philadelphia,* $2.50. An arresting novel suggesting that even science cannot overcome Nature's own way of doing things. The human equation in social relations cannot be ignored as the heroine found when she satisfied her maternal instinct and her hatred for men by resorting to artificial insemination.

Principles and Practice of Obstetrics. By Joseph B. DeLee, M.D. Seventh Edition. *Saunders, Philadelphia,* $12.00. Of the many excellent books on obstetrics now available, for an all-round general purpose text, particularly for students, this one would be hard to beat. Dr. DeLee apparently has been tireless in his efforts to keep the book up to the minute, and as regards firmly established obstetrical progress he has been eminently successful. The reviewer feels that the subject of sterility should rightfully be considered in an obstetrical text. It has been omitted from this one as from practically all others, probably to keep down the size of the volume which has been increased by 44 pages in spite of the author's efforts to reduce its size. The book abounds with Dr. DeLee's obstetric philosophy and his cryptic comments.—Charles W. Pavey, M.D.

Obstetrics for Nurses. By Joseph B. DeLee, M.D., and Alice Carmon, R.N. Eleventh Edition, *Saunders, Philadelphia,* $3.00. From the standpoint of teaching nurses obstetrics it is a great improvement over the tenth edition. The arrangement has been greatly improved, a feature Dr. DeLee credits to Miss Carmon. Illustrations have been increased, and the scope of the book broadened somewhat. Each chapter is introduced with a resumé of its contents and closed with a list of questions. An outline teaching supplement is provided. This book, and the one reviewed above, are two valuable and worthwhile contributions to the teaching of obstetrics, and worthy of the pen of their distinguished author.—Charles W. Pavey, M.D.

The Cyclopedia of Medicine—Revision Service 1938. George M. Piersol, Editor, *F. A. Davis Company, Philadelphia,* $12.50. This large volume of 1,186 pages represents recent contributions to the

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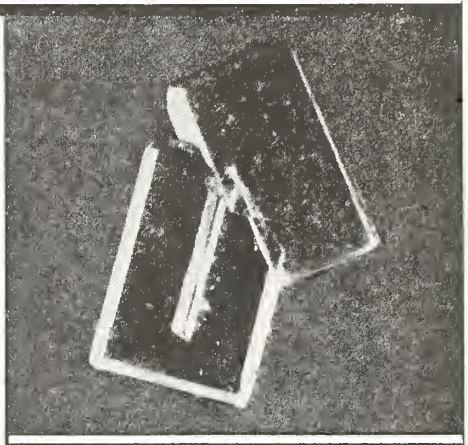
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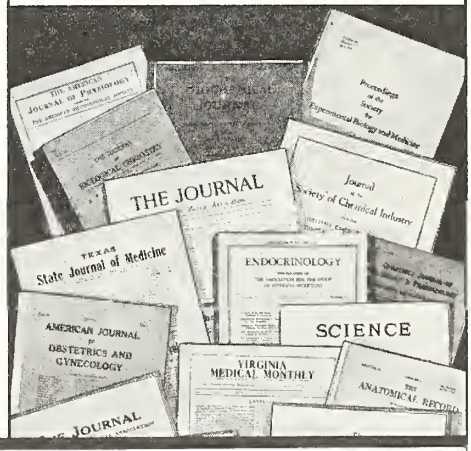
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literature of medicine, surgery, pediatrics and the specialties as reviewed by 65 men. The work is attractively and durably bound on excellent paper. It is difficult to know just who might profit most from such a book. As a specialist, the reviewer found little that he was not already acquainted with in internal medicine and feels that other specialists would be similarly minded. The contributions imply adequate previous knowledge of most subjects and for this reason the book is unsuited for students. It seems doubtful that the volume would appeal to the general practitioner. The index was tested by five subjects picked at random. Yawning, narcolepsy, and snake bites were not found although references to each were noted in reading through the book. Gastric hemorrhage was poorly discussed under a surgical section, no reference being found to a very excellent discussion of it in the medical section.—Robert C. Kirk, M.D.

Medicine in the Out-Patient Department. An Introductory Handbook. By Winthrop Wetherbee, Jr., Boston City Hospital. *Paul B. Hoeber, Inc., New York.* $1.00. The average medical student is pretty much at sea when he begins his dispensary work. Hence a hand book should be helpful in assisting him to find his way about. In the preparation of this little pocket guide, the author acknowledges the help of several well known men including J. V. Horst of the Ohio State University.

Manual of Cosmetics. By Charles Lazar, M.D. *Sherwood Press, Cleveland,* $5.00. An interesting book on remedial agents employed in the treatment of external faults—a book of practice for cosmeticians from the pen of Dr. Lazar in English following its first Hungarian edition. It is comprehensive in its treatment of the subject.

Intern's Handbook. A Guide Especially in Emergencies for the Intern and the Physician in General Practice. M. S. Dooley, M.D., Editor. *Lippincott, Philadelphia.* $3.00. The intern is ill prepared for meeting the situations which are new to him and in which the danger of making mistakes is grave. The faculty of the College of Medicine of Syracuse University has produced the second edition of a handbook which adequately meets its purpose of giving the young doctor a handbook which is just that. The whole thing is unusually complete with aid in emergencies. It is not a textbook and it is in no sense a synopsis of hospital practice. It is one book that sticks to its text. The information contained therein might well be in every physician's emergency bag.

Time to Eat. By Mame Dentler and Frank Fenner, Jr. *Albert Whitman, Chicago,* $1.00. By means of clear photographs it meets the need for a book for non-oral reading which will teach the child words and correct methods of eating at the same time.

Fun and Health By Mary B. Greer, *Albert Whitman, Chicago,* $1.00. In this book the author, a well known teacher of physical education, has through action pictures and songs arranged a series of exercises for the all-around, symmetrical development of children. These two recent books from the house of Albert Whitman should interest those of us who are parents of young children or who have a professional interest in the youngsters of others.

Nutrition and Diet Therapy. By Fairfax T. Proudfit, instructor in the University of Tennessee School of Nursing. *MacMillan, New York,* $3.00. The seventh edition and 20 years of service bespeaks the reception which this book has been accorded. It will repay any physician to read it and to have it for its recipes to give to his patients.

Roentgen and Radium Therapy. By A. J. Delario, M.D. *F. A. Davis Co., Philadelphia,* $8.00. As a competent monograph setting forth the things which its author, a well-known radiologist, has found useful to him personally, this work is to be recommended to all who are interested in the subject. The first 70 pages deal with the principles involved, the physical and biological properties of the rays and the rate of tissue recovery. The next 120 pages sets forth in graphic form theoretical and practical information on the subject of roentgen and radium waves. The final 30 pages give the end results of conditions treated with the agents.

Laboratory Manual of Hematologic Technic, Including Interpretations. By Regena C. Beck, M.D., pathologist to the Stuart Circle Hospital of Richmond, Va. *Saunders, Philadelphia,* $4.00.

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Recent advances in hematology have brought forth many monographs and manuals on the subject as well as compelled the volumes on Clinical Pathology to enlarge greatly the space which they are devoting to it. Dr. Beck has written the first comprehensive laboratory manual of hematologic technic for the medical technologist. The author's style is easy and her phraseology is simple. Anyone interested at all in the subject will find it most worthwhile, containing as it does so much information in one handy volume.

Your Chest Should Be Flat. By S. A. Weisman, M.D., University of Minnesota. *Lippincott, Philadelphia*, $2.00. Out of the mass of figures gained by measuring the chests of more than 20,000 children has come this practical little book of some 140 pages. All who are interested in the training and development of children and young people will find this information most helpful. Tuberculosis can be wiped out if we can get rid of its breeding places in poverty stricken homes and if we can build up the type of constitution that will be better able to resist the disease. The lesson which this book teaches us is that "while the flat wide chest may better resist the constant onslaughts of the tubercle bacillus to which it is exposed throughout life, the round, narrow chest is likely to succumb to a comparatively feeble attack." The author presents detailed instructions and exercises which will develop the flat, wide chest.

Synopsis of Clinical Laboratory Methods. By W. E. Bray, professor of clinical pathology in the University of Virginia. *Mosby, St. Louis*, $4.50. Each generation has its own series of compends which serve them well. When this one appeared two years ago, it was carefully reviewed in these pages and recommended as accomplishing its purpose. Now the second edition brings it up to date, maintaining the standards set in its first appearance.

Spinal Anesthesia. By Louis H. Maxson, M.D. *Lippincott, Philadelphia*, $6.50. The place of spinal anesthesia in the surgical field is becoming firmly establshed and the appearance of several monographs on the subject in the last two years has helped much in this direction. One of the best has just appeared. The book treats frankly of the difficulties, the dangers, advantages, and the disadvantages of this method as well technique, anatomical, physiological, and pharmacologic consideration.

As Others See You. The Story of Plastic Surgery. By Henry J. Schireson, M.D. *Macaulay, New York*, $3.00. Pushed to the front by the World's war, plastic surgery was publicized by World War, plastic surgery was publicized by automobile. This book is an attempt to inform the layman what he may expect from the plastic surgeon and to inform him about the author's operations.

Drug Addicts are Human Beings. By Henry Smith Williams, M.D. *Shaw, Washington, D.. C.*, $2.50. Here comes the 119th book from the pen of a physician busy in private practice. It is a severe indictment of the narcotic laws and more especially of the narcotic officer. The author feels that at no distant date this medical subject will be restored to medical hands. The failure to do this has produced for us a Billion Dollars Drug racket which is described vividly in this book. All in all a fine exposé of what government management of a medical problem produces in the way of results. Another lesson for the American people.

Carbon Monoxide Asphyxia. By Cecil K. Drinker, professor of physiology in the Harvard School of Public Health. *Oxford Press, New York*, $4.50. Winter months here in the north serve to make us all conscious of the dangers of carbon monoxide. Hence a comprehensive monograph is welcome. This monograph has been produced to supply information to individuals working in those fields of industry in which carbon monoxide is a lively problem. The author has succeeded in his purpose. It no doubt will be the standard book of reference for some time to come.

You Can Sleep Well. By Edmund Jacobson, M.D. *Whittlesey House*. $2.00. So often your patient will complain that she just cannot sleep and she has tried everything. Here is a book to give them to study and to put into practice. It is a scientific approach to the now-I-lay-me-down-to-sleep problem illustrated with charts, graphs, photographs, and detailed instructions. Since he is the authority on relaxation, he fits mechanism into a routine to induce slumber. He condemns breathing exercises, autosuggestion, hypnotism, and sedatives as bad. If you dream, he says, you are not relaxed. Hence you should not have them analyzed but you should change your routine to secure complete relaxation. Relax your eyes and your imagination will doze off with you.

Medicine in Modern Society. By David Reisman, M.D., *Princcton Press, Princeton, N. J.*, $2.50. If we of America but recognized that the history of medicine is but an epitome of the history of civilization, not so many of us would be trying to dissect medicine out the social fabric and to isolate it for special treatment. This is the sound theme of an excellent book by this distinguished clinician and student of history. It is urged in these times that every physician get himself a copy. You will not agree with all he has to say but you will be stimulated to do some thinking.

Roosevelt to Send Special Message To Congress on Health Program and Social Security Act Clauses

According to Chairman Josephine Roche of the Interdepartmental Committee to Coordinate Health and Welfare Activities of the Federal Government, President Roosevelt will send a special message to Congress early in January concerning the national health program.

The President has announced that he will also send to the Congress a special message dealing with suggested improvements in the Social Security Act, at the same time transmitting to Congress the report of the Social Security Advisory Council, which recommends drastic revisions in the Act. This council is composed of 25 members, representing employers, employees and the public.

The principal recommendations of the council are as follows:

1. Ultimate extension of federal old-age insurance to "the largest possible proportion of our gainfully employed population."
2. Advancement from 1942 to Jan. 1, 1940, of the beginning of old-age insurance payments.
3. Protection of the "family unit" by paying supplementary benefits to aged wives and widows of beneficiaries.
4. Payment of orphans' benefits and widows' allowances when workers die before reaching retirement age of 65.
5. Payment of disability insurance to workers and their families when permanent and total disability stops the worker from earning a living.
6. Payment of lump-sum death benefits up to $200.
7. Immediate extension of the system to seamen and employes of banks, non-profit religious, charitable and educational institutions. This would cover about 2,600,000 persons.
8. Inclusion of about 6,000,000 farm and domestic employes by Jan. 1, 1940, if possible.
9. Elimination of the old-age reserve, estimated to reach $47,000,000,000 by 1940, in favor of a much smaller "contingency fund" for which Social Security taxes would be earmarked.
10. Contribution of one-third of the insurance system's cost by the federal government, with employers and workers contributing the balance in equal shares.

Cincinnati—Dr. Parke G. Smith, President-Elect of the Ohio State Medical Association, and Dr. Fred Carter, President-Elect of the American Hospital Association, were the speakers at a recent meeting of District 8, Ohio State Nurses' Association. Dr. Carter discussed group hospitalization and Dr. Smith explained the medical service plan now being studied by the Cincinnati Academy of Medicine.

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When the correct dosage has been determined, it may be given two or three times a day, bearing in mind that administration in the late afternoon or evening may interfere with sleep. When divided doses are required, the specially grooved tablet may be broken and one-half or one-quarter tablet given.

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News Notes

Akron—Dr. G. A. Palmer has been elected president of the Mercator Club.

Ashland—"Doctors in History" was the subject of a talk made by Dr. Paul E. Kellogg at a recent meeting of the Lions Club.

Athens—Dr. Blaine R. Goldsberry was guest speaker at a meeting of Red Cross roll-call workers at Nelsonville recently.

Benton Ridge—Dr. J. H. Varnum has been practicing medicine here for 42 years.

Bellevue—Staff members of Bellevue Hospital are: Dr. C. L. Harding, president; Dr. E. B. Vogel, vice-president; Dr. H. N. Kuhn, secretary. Executive Committee—Dr. Harding, Dr. J. I. Appleby, Dr. C. A. Kingman and Dr. Kuhn.

Chillicothe—Accomplishments of a generation in medicine and surgery were reviewed by Dr. H. R. Brown at a recent meeting of the Century Club.

Crestline—At a recent meeting of the Child Conservation League, Dr. Zoe L. E. Bower spoke on "The Greatest Heritage of the Child".

Columbus—Dr. H. L. Mitchell has been reappointed health commissioner of Franklin County for a two-year term.

Dayton—Dr. Frank L. Shively discussed "Unusual Surgical Conditions of the Abdomen" at a recent meeting of the Osborn Rotary Club.

Defiance—Compulsory health training in the public schools was advocated by Dr. D. J. Slosser in a recent talk before the Defiance College Assembly.

Dupont—Dr. Edward H. Bird has been practicing here for 51 years.

Elyria—Staff officers of Memorial Hospital for 1939 are: Dr. S. F. Basinger, president; Dr. J. L. Sullivan, vice-president, and Dr. R. J. Shork, secretary.

Forest—Dr. John F. Holtzmuller is the new health commissioner of Hardin County.

Findlay—Dr. J. C. Tritch, who has practiced medicine here for over 60 years, suffered a broken left hip in a fall on the ice late in November.

Fremont—The Sandusky County Medical Society recently approved a proposed group hospitalization plan for the county.

Galion—Dr. C. J. Griebling spoke on "Social Diseases" at a recent meeting of the Mothers' Study Club.

Gallipolis—At a recent meeting of the Pre-School Mothers' Club, Dr. Leo C. Bean talked on "Allergic Diseases of Children".

Granville—Dr. Geraldine M. H. Crocker spoke on "Esteem of the Nursing Profession" at a dinner recently given for the graduating class of

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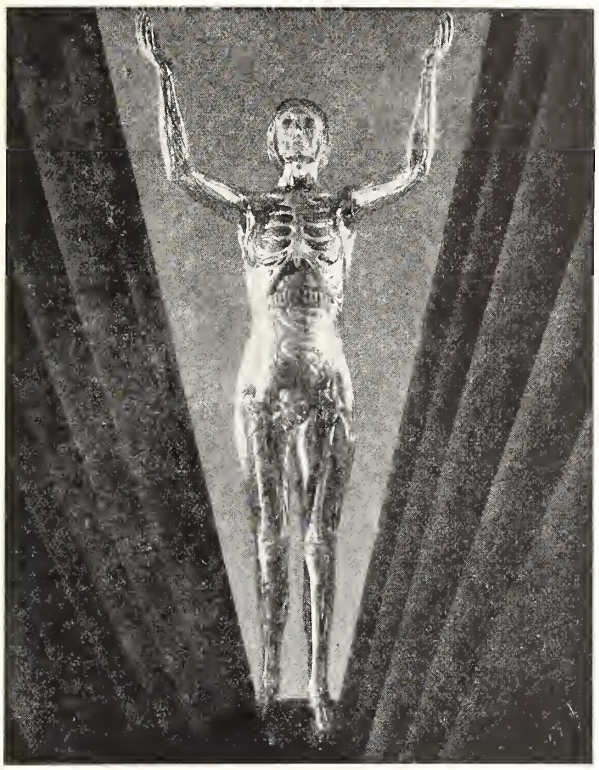
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* *Excerpt from the lecture delivered during demonstrations of the Camp Transparent Woman exhibit to the laity.*

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IN DECEMBER, 1936, we announced our plan to exhibit the Camp Transparent Woman on a nation-wide public health educational tour. In the two years since then, this unique figure, the only one of its kind in the world, has been viewed by about five million people, including approximately sixty thousand physicians. We want to thank those members of the medical profession and public health organizations who by their presence, enthusiasm and active cooperation helped make this tour so successful.

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Newark City Hospital by the Nurses Alumnae Association of the hospital.

Kingsville—Dr. Charles H. Edel addressed a recent meeting of the Ashtabula Exchange Club on "Preparedness".

Lorain—Dr. Leonard A. Stack is the new fleet surgeon of the Interlake Yachting Association.

Mansfield—Dr. D. D. Deeds and Dr. W. E. Wygant led a forum discussion on "Christian Personality in Relation to Human Physiology" at a recent community meeting in the First Congregational Church.

Martins Ferry—An address in opposition to free medical care for school children was made by Dr. Bertha Joseph at a meeting of the Elm School P.T.A., November 22. Dr. Joseph, who is medical director of the Family Planning Clinic, Wheeling, W. Va., also gave illustrated address to 500 high school girls, December 1, on "Social Diseases". She is scheduled to give a series of lectures to Y.W.C.A. members in Wheeling during January and February on "Planning for Marriage".

Piqua—The new maternity wing of Piqua Memorial Hospital was opened for public inspection, Sunday, December 11.

Sugar Grove—Dr. Charles P. Swett has been elected a member of the American Numismatic Association.

Waterville—Dr. Barney J. Hein, Toledo, President of the Ohio State Medical Association spoke on "The Employer and the Injured Employee" at a recent meeting of the Rotary Club.

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(*Signature*) .....

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(January, 1939)

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The Ohio State Medical Journal

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Vol. 35 FEBRUARY, 1939 No. 2

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor* ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

Interpretation of Clinical Chemical Procedures

JOHN H. TALBOTT, M.D.

THE concept is prevalent in America that the center for clinical medicine as well as for clinical investigation is gradually moving across the Atlantic from Central Europe. If this is a fact, certain aspects of the movement should be obvious to critical observers and partially susceptible to analysis. Widespread interest in state and national health projects, raising of standards of medical school curricula and endowment of research projects are frequently discussed and familiar to many of you. The subject which I wish to discuss this evening, clinical chemistry, is more subtle than these in its effect and probably less appreciated. It is, nevertheless, a vital factor in the advancement of American Medicine. To mention the names of a few of the masters in this field, Folin, Van Slyke, Stanley Benedict, Shaffer, Bloor and Fiske, is to pay tribute to a unique group of pioneering biochemists.

Before I proceed with this subject, I should like to dispel from your minds certain prejudices regarding the practice of medicine and the pursuit of research projects. It is time that we discard the biased conception that research is pursued by those who have no feeling of responsibility to the medical profession. In truth, I would like to hope that the contrary more accurately represents the facts. I am of this conviction because in medical centers such as New York, Philadelphia and Boston, most of the clinical investigation is done by physicians who have their responsibilities tripled by superimposed teaching and private practice. In caring for those who are physically and mentally ill, we must be as keenly aware of practical observations as are you who have chosen to devote most of your energies to this end. The bridge between my activities, which are interspersed with what I hope is clinical investigation, and yours should be neither formidable nor inaccessible. The elevation of one of your colleagues to the presidency of the Central Society for Clinical Investigation lends weight to my argument. I should like to recommend to the skeptics and to those who have not already read it, a leading article on the place of research in private practice which appeared in the *Journal of the American Medical Association* for July 16, 1938. I do not know the author, Dr. Johnson, personally, but any physician with his imagination commands my respect as well as that of his patients.

In the discussion of the several chemical procedures which should be suitable for the diagnosis and treatment of disease, many of the methods will be familiar as they are already available in your office or hospital laboratory. In some in-

The Author

● Dr. Talbott, Boston, Mass., is a graduate of Harvard University Medical School, 1929; member of Massachusetts Medical Society; American Society for Clinical Investigation; Sigma Xi; assistant physician at Massachusetts General Hospital; associate in medicine at Harvard University Medical School. (1) (2)

From the Medical Clinic of the Massachusetts General Hospital and the Fatigue Laboratory, Harvard University.

1. The writer is indebted to Dr. Frederick S. Coombs and Messrs. William V. Consolazio and Louis J. Pecora for their cooperation in the preparation of the manuscript.

2. This paper was presented Nov. 15, 1938, before the Mahoning County Medical Society, Youngstown, Ohio.

stances, determinations infrequently requested, but important nevertheless, should be made available to those who are interested. It is my conviction that all of the procedures that will be mentioned this evening have their place in the armamentarium of the progressive physician and should be as useful to you as they are to the investigator.

I should like to stress the need for fewer determinations where the results are predictable and in their place, recommend more determinations with unpredictable results. Thus, I would advise fewer blood sugar determinations on patients with classical diabetes and fewer nonprotein nitrogen determinations on patients with advanced Bright's disease. Let us instead, use more of our time for carbon dioxide, total base and chloride determinations on patients in diabetic coma so that their condition will be more intelligently treated; determine blood sugars on all patients with unexplained spells of weakness to exclude a pancreatic tumor and serum uric acids on all patients with arthritis to exclude a diagnosis of gout.

The selection of blood for kind and phase will be considered first. Venous blood taken without stasis from the ante-cubital vein is satisfactory for most determinations. If accurate knowledge concerning the oxygen and carbon dioxide content of the blood is desired, arterial blood should be taken. Because of this fact, arterial blood is taken routinely in our investigative work. During the past six years, more than 2000 arterial punctures have been done by my associates or myself without any untoward results. On many patients this procedure has been repeated at frequent intervals. In two patients, each with an incurable disease, we did repeated arterial punctures at approximately the same site several days before death. Inspection of the vessels at necropsy showed no residual trauma or tendency to thrombus formation. Arterial punctures are not recommended as a routine procedure, but we believe that when they are indicated, they may be done without apprehension or fear of producing unnecessary harm.

For most determinations, serum or plasma is to be preferred to whole blood. Since all of the chemical constituents of blood except glucose are unequally distributed between serum and cells, any fluctuation in cell volume will affect the final result on whole blood even though no change in concentration of the constituent in serum or cells has occurred. For example, the concentration of chloride in serum is approximately double that in cells. An apparent low whole blood chloride might be produced by an increased cell volume such as occurs during dehydration, when actually no change in concentration of chloride in either serum or cells had taken place. In our laboratory, whole blood is used only for determination of sugar, sulphanilamide, and bromide concentration, oxygen capacity and sedimentation rate. All other determinations are done on true plasma or serum expressed from clotted blood.

The time at which blood is withdrawn may be important. Results will be more constant if blood is taken before breakfast or 12 to 14 hours after the last meal of the previous day. At the Massachussets General Hospital it is customary to allow no fluid during this interval. It is advisable that fasting blood be obtained for the determination of sugar, cholesterol, calcium, phosphate and carbon dioxide content. An added argument for taking bloods early in the day is that the work of the laboratory may be expedited.

A dual form of nomenclature for expression of the concentration of electrolytes appears in the literature. Both forms are given in Table I.

TABLE I
Concentration of Constituents of Normal Persons

Constituent	Phase	Average Range	
		Per 100 cc.	Milliequivalents per liter
Total fixed base	Serum		150-155
Sodium	Serum	320-324 mgm.	139-141
Potassium	Serum	15.6-19.5 mgm.	4-5
Calcium	Serum	9.4-10.8 mgm.	4.7-5.4
Magnesium	Serum	1.8-2.4 mgm.	1.5-2.0
Total carbon dioxide	Serum	56-61 vol.	25-27
Chloride	Serum	362-376 mgm.	102-106
Protein	Serum	6.4-7.5 gm.	15.5-18.0
Phosphate	Serum	3.1-4.5 mgm.	1.0-1.5
Phosphatase	Serum	2-4 units	
Non-protein nitrogen	Serum	20-35 mgm.	
Uric acid	Serum	3-5 mgm.	
Cholesterol	Serum	160-220 mgm.	
Sugar	Whole Blood	80-120 mgm.	
Oxygen capacity	Whole Blood	19-21.3 vol.	8.5-9.5
Sedimentation rate	Whole Blood	0.2-0.4 mm. per minute	
Vitamin C	Serum	1.0-1.5 mgm.	
Total bilirubin	Serum	0.2-0.8 mgm.	

Milligrams per cent (mgm. per cent) may be transposed to milliequivalents per liter (m.eq./l.) if one divides by the molecular weight. One milliequivalent per liter is also equivalent to one cc. of tenth normal acid per 100 cc. In order to balance bases and acids in any sample of blood it is obligatory that a common denominator be employed. In spite of its formidable sound I hope it will be evident that the use of the expression m.eq./l. simplifies rather than confuses any consideration of serum electrolytes. Its use we believe is justified and it will be retained in this discussion as the form of expression.

References for the description of the methods used in our laboratory are given in Table II.

TABLE II
Amount of Material and Methods for Analysis

Constituent	Phase	Amount of material	Reference
		cc.	
Total fixed base	Serum	0.2	Keys, A., J. Biol. Chem., **114**, 449, 1936.
Sodium	Serum	1.0	Butler, A. M., and Tuthill, E. J., J. Biol. Chem., 93, 171, 1931.
Potassium	Serum	1.0	Consolazio, W. V., and Talbott, J. H., J. Biol. Chem., **126**, 55, 1938.
Calcium	Serum	1.0	Clark, E. P., and Collip, J. B., J. Biol. Chem., **63**, 461, 1925.
Magnesium	Serum	0.5	Cruess-Callaghan, G., Biochem. J., **29**, 1081, 1935.
Total carbon dioxide	Serum	0.5	Van Slyke, D.D., and Neill, J. M., J. Biol. Chem., **61**, 523, 1924.
Chloride	Serum	0.2	Keys, A., J. Biol. Chem., 119, 389, 1937.
Protein	Serum	0.2	Peters, J. P., and Van Slyke, D.D., Quantitative Clinical Chemistry, Vol. II, p. 516, 1932.
Phosphate	Serum	1.0	Tschopp, E., and Tschopp, E. Helvetia Clinica Acta, 15, 793, 1932.
Phosphatase	Serum	1.0	Bodansky, A., J. Biol. Chem., **101**, 93, 1933.
Non-protein nitrogen	Serum	0.25	Daly, C. A., J. Lab. & Clin. Med., 18, 1279, 1933.
Uric acid	Serum	0.5	Benedict, S. R., and Behre, J. A., J. Biol. Chem., 92, 161, 1931.
Cholesterol	Serum	0.2	Bloor, W. R., J. Biol. Chem., 77, 53, 1928.
Sugar	Whole Blood	0.1	Folin, O., and Malmros, H. J., Biol. Chem., 83, 115, 1929.
Oxygen capacity	Whole Blood	1.0	Van Slyke, D.D., and Neill, J. M., J. Biol. Chem., **61**, 523, 1924.
Sedimentation rate	Whole Blood	1.0	Rourke, M.D., and Ernstene, C., J. Clin. Invest., 8, 545, 1930.
Vitamin C	Serum	0.1	Mindlin, R. L., and Butler, A. M., J. Biol. Chem., 122, 673, 1938.
Total bilirubin	Serum	1.0	Malloy, H. T., and Evelyn, K. A., J. Biol. Chem., **119**, 597, 1937.
Sulphanilamide	Whole Blood	0.1	Marshall, E. K., Jr., and Litchfield, J. T., Jr., Science, 88, 85, 1938.
Bromide	Whole Blood	1.0	Wuth, O., J.A.M.A., 88, 2013, 1927.
Iodide	Whole Blood	10.0	Perkins, H. J., and Cattell, R. B., N. Y. State J. Med., **36**, 1003, 1936.

These methods are adequate and satisfactory, either for a diagnostic laboratory or a research laboratory. In general, it is believed that no greater effort is required to perform a good determination than a mediocre one. One should strive to use the best methods available if reliable results are anticipated.

Much of the advance in methodology during the past decade may be attributed to the refinement of micro-techniques. The Rehberg microburette[1], the automatic pipette[2], the capillary pipette and the Evelyn photocolorimeter[3] are notable examples. With these instruments, a blood sugar may be determined on two drops of whole blood and a chloride or total fixed base on not more than 0.2 cc. of serum. If skillfully executed, a micro-technique may be superior to a macro-technique both in efficiency of time and material.

The average range for normals that is given in Table I is based upon a large number of determinations done in our laboratory on bloods of healthy and sick persons. You should not be disturbed if some of the data vary slightly from your own standards. It is a fact that the range for normals is more theoretical than real and it is probably advisable for each laboratory to compile its own standard values. A word of caution should be given with regard to the interpretation of normal or pathological data. In any laboratory where a large number of determinations are done annually, abnormal data may be obtained infrequently upon supposedly healthy persons. In such instances as well as in reaching a decision regarding an obviously ill person, laboratory data must be interpreted in conjunction with, and not to the exclusion of, the clinical observations.

TOTAL FIXED BASE

The bases which are present in the blood of normal persons are sodium (Na), potassium (K), calcium (Ca), and magnesium (Mg). The sum of these four comprise what is known as inorganic or total fixed base (TB). In normal blood, organic bases are present in minute amounts only. Since blood is essentially neutral and the reciprocal hydrogen ion concentration is about 7.40, in terms of monovalent equivalents, the sum of fixed base equals the sum of the acids.

SODIUM

In the serum of healthy persons more than 90 per cent of the total base is sodium and an accurate estimate of the concentration of it is reached if the concentration of TB is known. This assumption can not be applied to patho-

Table III.

← Concentration of chemical constituents in several pathological states

Condition	Total fixed base	Sodium	Potassium	Calcium	Magnesium	Total carbon dioxide	Chloride	Protein	Phosphate	Phosphatase	Uric acid	Sugar	Non-protein nitrogen	Oxygen capacity	Per cent saturation	Cholesterol	Total bilirubin	Direct reaction	Vitamin C
Addison's disease	±	—	+	*		*	—	*	+			—	+			+			—
Burns	—	—				—	—	—	+				+	—					
Cirrhosis of the liver												+	+	—	—	±			—
Congenital heart disease	—	—				—	+		+		+		+	+	—				
Common cold		—					—	*								—			—
Dehydration	—	—					—	+					+						
Diabetic coma	—	—		*		—	—	+				+	+	+		+			
Diabetes insipidus	+	+	*	*		*	+	*	*			*	*						
Diarrhea	—	—		+		—	—	+			*		+						
Epilepsy	*	*	+	*	—	*	*				*								
Exophthalmic goiter				*					*	+		+				—			
Familial periodic paralysis	*	*	—	*		*	*	*	—				*						
Gout	*	*	*	*		*	*	*			+		*	*					
Heat cramps	—	—		+		*	—	+	—			*	+	+					
Hyperparathyroidism				+				*	—	+			*			+			
Hyperventilation	—	—		*		—	+	*	*				*	*	+				
Hypoparathyroidism				—				*	+	*									
Hypopituitarism (Simmond's cachexia)	—	—	*	*		*	—	—	*		*	—	+	—					
Intestinal obstruction	—	—	+				—		+				+			—			
Jaundice																			
Acute yellow atrophy									+		—	—	+		—	—	+	+	
Hemolytic														—	*	—	+	+	
Icterus neonatorum														—			+		
Obstructive												+	+	+	—	+	+	+	
Lymphogranuloma inguinale	*	*		*		*	*	+					*						
Leukemia									+	*	+			—		+			
Meniere's disease		*	+			*	*	*	*				*						
Multiple myeloma	*	*		+		*	*	+		+									
Myxedema								+	—			*	*	—		+			
Nephritis																			
Acute glomerular	*	*	*			*	*	*	*		*		+	—					
Acute toxic	—	—	*	—		—	—	—	+		+	*	+	—					
Chronic	*	*	*	*		—	*	—	+			+	+	*		+			
Nephrosis	±	±		—		*	±	—					*	—		+			
Operation, surgical	—	—					—	—					+	—					—
Paget's disease				*				*	*	+									
Pancreatic tumor												—							
Pemphigus	—	—	*	—		*	—	—	*			*	*	—					
Pneumonia	—	—		*		*	—		—		+	+	+	*	—	—			—
Polycythemia vera				*		*					+			+	*	—			
Pyloric obstruction	—	—				+	—		+		*		+						
Rickets				*					—	+									
Scurvy				*					*							—			—
Starvation	—	—		—		—	—	—				—	+			±			—
Steatorrhea	—	—		—			—		—			—				*			

Legend: (*) Normal, when determined. (+) Above normal. (—) Below normal.

logical sera, however, and it seems best to determine three of the individual bases or two individual bases plus total base. A conception falsely held is that determination of the concentration of serum chloride is quite as adequate as determination of sodium or TB. While this may be applicable to some sera it is not an infallible rule. In disturbances of acid-base balance, determinations of Na and TB should be distinct from determination of chloride concentration; they are equally as important.

In dehydration (Table III), without concomitant renal failure, there is a decreased amount as well as a decreased concentration of base in the serum. This is illustrated by our 1934 studies in Youngstown[4] of patients suffering from the ill effects of heat. It was noted in several of the workmen who had perspired profusely and were suffering from heat cramps that the concentration of total base in the serum decreased to approximately 140 m.eq./1. and the Na to 130 m.eq./1. Since sweating is associated with a loss of Cl as well as Na there was a similar decrease in the concentration of serum Cl.

The dehydration of diabetic acidosis and coma is accompanied similarly by a depletion of TB and Na. The diuresis from glycosuria and ketonuria and vomiting and inadequate ingestion of food, are associated with the pathogenesis of the disordered chemical state. In the treatment of patients with diabetic acidosis we believe it quite as important to know the level of the serum Na or TB as the level of blood sugar. Occasionally, deaths from diabetic coma might be prevented if dehydration were rapidly alleviated without going to the opposite extreme of excess fluid and salt and edema formation.

Surgical operations and convalescence are invariably accompanied by increased sweating with loss of water and salt. Many patients are able to withstand this dissipation of body constituents without undesirable effects; others are not. It is probably routine on your surgical service to give parenteral salt solution to patients post-operatively. This practice cannot be praised too highly. Even with this precaution, convalescence may be eventful without an obvious explanation. If adequate base studies were available on such patients, a serious deviation from the normal would point the way toward efficacious treatment. Once more, a word of caution, lest further harm result, against the prescription of an excess of salt solution to correct any clinical abnormality.

In two other surgical conditions, intestinal obstruction and severe burns, alarming alterations of the acid-base pattern may be observed. Shock may be present in either state and while it seems unlikely that acid-base changes are entirely responsible for shock symptoms, rapid restoration of the chemical disorder is to be encouraged. It seems necessary to insert a note of warning if intestinal obstruction is treated by Wagensteen drainage. Unless fluid balances are carefully maintained on each patient receiving this treatment, untoward effects or even death may result from over-treatment.

In pneumonia, influenza, and other pyrexias of short duration, sweating may lead to a serious depletion of water and base. Because of this sequence of events it is a common practice at the Massachusetts General Hospital to complement the diet of patients suffering from pneumonia with 6 or 8 grams of sodium chloride daily. In treatment of the common cold advice to drink fluids should be modified to include salted fluids such as broths or soups. If liberal amounts of tap water or carbonated beverages only are ingested, further depletion of body salt results. It should be a routine procedure wherever fever therapy is used, to provide an adequate supply of salted drinking water during the pyrexia period. In fevers of long duration as typhoid, subacute bacterial endocarditis, and chronic leukemia, the body becomes adjusted to the chronic loss of salt in the sweat and the need for replacement is not critical.

In Addison's disease, during the stage of moderate or severe adrenal insufficiency, there is a lowering of the concentration of TB and Na. In the absence of an adequate amount of adrenal cortical hormone, there is, presumably, a decreased ability of the tissues to retain Na. This results in dehydration, just as loss of salt by means of sweat leads to dehydration. In a previous sentence, it was noted that changes in the concentration of TB and Na in pathological sera did not necessarily parallel each other. Adrenal insufficiency is such an example. With a marked decrease in concentration of sodium and a simultaneous elevation of serum potassium, the decrease in TB may be small.

In hypopituitarism or Simmond's cachexia, the changes in concentration of TB and Na are similar to those of Addison's disease. Since the mechanism of many of the symptoms of this dyscrasia are identical with those in adrenal insufficiency, similarity of chemical changes is anticipated.

INCREASE OF SERUM BASE

Diabetes insipidus, another endocrine disorder, is one of the few recognized conditions in clinical medicine with an increased concentration of serum base[5]. This phenomenon may be exaggerated when fluids are restricted or the sodium chloride intake is increased. Such data may be useful in distinguishing pituitary diabetes from polyuria of psychogenic origin.

In nephritis, as in other forms of renal insufficiency, electrolyte studies may be of aid in diagnosis and treatment. The degree of disturbance in acid-base balance generally is a function of the duration and of the type of renal lesion. The

chronic stage of glomerular nephritis with edema may be associated with a retention of base[6] and an increased retention of serum Na. In nephrosis with degeneration of the tubules, there may be an increased concentration of serum Na without edema. Patients with gout and renal failure secondary to protracted urate excretion presumably have a better prognosis if the serum Na is above normal than if it is below normal. In the first instance, it is believed that the tubules principally are affected by urate deposits. If the sodium is below normal, it is assumed that the vessels and glomeruli are damaged as well. In hypochloremic uremia with oliguria the elevated non-protein nitrogen may prejudice the attending physician against a favorable prognosis. If on the other hand, a serum sodium were determined simultaneously, the need for parenteral saline would be obvious and dramatic improvement would follow.

The treatment of acute toxic nephritis such as is produced by ingestion of bichloride of mercury should be guided by the electrolyte pattern in the serum[7]. If the water and salt content of the serum is decreased, then parenteral saline should be administered even though the patient is anuric. It is thought to be as futile to treat a patient with anuria without adequate chemical data as to treat a man of 50 who complains of gastric distress without x-ray studies.

Diarrhea, especially in infants, may be accompanied by a greater loss of base than acid. This can best be determined by analysis of the serum. If such is found to be a fact, alkalies such as sodium bicarbonate or sodium lactate should be given with parenteral fluid.

In order that the dermatologist may not feel that a chemical laboratory is unnecessary in the practice of his specialty, I should like to refer briefly to some recent work we have done on patients with acute and chronic pemphigus. During the past four years we have seen eight cases of acute pemphigus and 14 cases of the chronic form. In all of the acute cases there has been a lowering of the concentration of Na similar to that in Addison's disease. In five patients treated with parenteral NaCl and adrenal cortical extract, the outcome was favorable. In three untreated patients, death followed within two or three months.

In summarizing the discussion of sodium and total base, it must be obvious that our aim in treatment is the restoration of the acid-base balance of the blood. This is based upon our firm conviction that the body functions best in sickness or in health when the internal environment of water and salt is normal. Restoration of a disordered internal environment is generally possible, but must follow an adequate definition of the disturbance. In gaining such a definition, the laboratory is indispensable.

POTASSIUM

Little is known regarding the role of K in health and disease and most of our information can be presented briefly. Contrary to current beliefs, the metabolism of K in the human body is probably different from that of Na and there is little justification for considering them in the same category. In Addison's disease as well as in intestinal obstruction, a lowering of the serum Na concentration may be accompanied by an elevation of serum K. It is not proved, however, that symptoms of shock in either condition are intimately associated with the rise in serum K concentration.

During an attack of tinnitus and vertigo of classical Meniere's syndrome, an increased concentration of serum K[8] may be observed. Without going into a detailed explanation of the reasons for our treatment, suffice it to say that in patients with Meniere's disease, we have used a high potassium intake with remarkable results. Several patients who either have been unable to tolerate a low salt regime or were not benefited by it, have been much better on a high K diet.

Familial periodic paralysis is the only pathological state in which a lowering of serum K is recognized. This is a rare disease, but striking in its clinical picture. The onset of paralysis is accompanied by a diminution in concentration of serum K which returns to normal with subsidence of the paralysis. Prevention of attacks of paralysis by the ingestion of KCl appears to be therapeutically effective.

CALCIUM, PHOSPHORUS AND PHOSPHATASE

It is expedient to discuss together the metabolism of Ca, P, and phosphatase. By the same token, information about any single constituent must be interpreted in conjunction with information concerning the other two constituents. In some conditions it is equally important to have a serum protein determination as well as x-rays of the bones.

Since the metabolism of Ca and P is intrinsically associated with the hormone of the parathyroid gland it is to be expected that a dysfunction of this gland will be accompanied by a change in concentration of these constituents. At the Massachusetts General Hospital interest in the parathyroids runs high and we have the opportunity to see a significant number of cases of parathyroid dyscrasia annually. In classical hyper-parathyroidism there is an increased concentration of serum calcium, a decreased concentration of serum phosphate, and an increase of serum phosphatase. The finding of an increased urinary excretion of Ca on a low Ca intake is also helpful in establishing a diagnosis of this disorder. In hypoparathyroidism certain of the chemical changes are reversed. The Ca content of serum is below normal, phosphate is normal or slightly above, while phosphatase is normal.

X-ray studies may show changes in multiple mycloma which are similar to hyperparathyroidism as well as an elevated serum calcium if the serum protein is elevated. The phosphate, however, is not decreased and the presence of Bence-Jones protein in the urine should be observed. The concentrations of serum calcium and phosphate are normal in Paget's disease while the phosphatase may be elevated to 20 or 30 units. Rickets may be accompanied by little or no change in concentration of serum calcium, but the concentration of phosphate usually is decreased. In steatorrhea or Gee's disease with inability to absorb fat from the gut, the concentration of phosphate is unchanged, but calcium and protein are decreased.

Any discussion of serum phosphate must be modified to take into account renal function. In advanced renal failure there is a retention in the serum of phosphate as well as nitrogenous products. If hyperparathyroidism, therefore, is accompanied by severe renal damage and the N.P.N. is elevated, there may be an increased concentration of serum phosphate rather than the anticipated decreased concentration.

MAGNESIUM

It must be admitted that we have virtually no information concerning Mg in human body economy. Undoubtedly metabolic disorders associated with this electrolyte exist, but they are unrecognized as yet. Hirshfelder[9] has studied the level of magnesium in many patients with epilepsy and found that a lowered concentration of this substance in the serum accompanies an acute attack. This has not been confirmed.

CHLORIDE

On the acid side of the balance, chloride normally occurs in greatest concentration. In dehydration from sweating, diuresis or inadequate salt intake, a close parallel may be observed between decrease in concentration of Na and decrease in concentration of Cl. In other disorders of salt metabolism, the reciprocal relationship in the serum between concentrations of total carbon dioxide (CO_2) and chloride may prevent equivalent changes in Na and Cl. Within limits and unrelated to the level of Na, a decreased concentration of total carbon dioxide is accompanied by an increased concentration of Cl. Thus, in hyperventilation, the concentration of sodium may be below normal as is the concentration of carbon dioxide, yet the concentration of chloride may be increased considerably. In the acute or chronic stage of glomerular nephritis or gouty nephritis it may also be increased. In dehydration from pyloric obstruction and vomiting, the opposite is observed. The loss by way of the gastric juice of large amounts of chloride and minimal amounts of total base is reflected in the serum Cl concentration; equally impressive is the increase of total carbon dioxide. It may be needless to state that the treatment of vomiting, whatever may be the underlying disturbance, can best be undertaken if the concentrations of TB, Cl, and total CO_2 are known.

TOTAL CARBON DIOXIDE

It is customary to assume that the level of total carbon dioxide in the blood is a satisfactory index of the degree of acidosis or alkalosis. In many instances this is correct. Reference to the tri-axial graph of Shock and Hastings[10] readily shows, however, that acidosis may be observed with an elevated carbon dioxide content and alkalosis may accompany a decreased concentration of carbon dioxide. In rebreathing the first condition is fulfilled, in hyperventilation, the second. This is possible because pHs or hydrogen ion concentration is a function of the ratio of total CO_2 to dissolved CO_2 and not total CO_2 alone. Another factor which determines the level of total carbon dioxide in the blood is the concentration of total base. Other things being equal there may be a lowered concentration of total carbon dioxide without a concomitant change in hydrogen ion concentration, if the level of base is low. Acidosis is commonly encountered in diabetic coma and advanced nephritis. In diabetic coma[11], the total carbon dioxide is lowered because of the increased concentration of ketone bodies as well as a decreased concentration of total base. In nephritis, the carbon dioxide is displaced by sulphates, phosphates, and undetermined acids.

Alkalosis accompanying hyperventilation may be induced voluntarily or may be a manifestation of hysteria. Many of the chemical changes observed in hysterical hyperventilation[12] may be as marked as are those observed in an advanced chronic degenerative disease. The correction of the chemical disturbance, with return to normal breathing, is impressive. In alkalosis, from prolonged ingestion of alkalies, such as follows the treatment of peptic ulcer, the total carbon dioxide of the serum may be double the normal value. If this condition is prolonged, renal damage may be a consequence. Because of this any patient undergoing treatment with alkali should have the total carbon dioxide content of the serum determined at frequent intervals to detect alkalosis. It is equally important to determine nonprotein nitrogen content when renal damage is suspected.

PROTEIN

The site of the formation of serum albumin and globulin is not known, but certain evidence suggests that the regeneration of albumin is slower than the regeneration of globulin. Any disturbance, therefore, in which increased destruction of protein occurs, subsequent regeneration will be accompanied by a relatively greater

increase in concentration of serum globulin than of serum albumin.

An increased concentration of total protein may be observed in multiple myeloma and lymphogranuloma inguinale[13]; less frequently is it observed in chronic infection, such as tuberculosis, subacute bacterial endocarditis, Boeck's sarcoid and lupus erythematosis disseminatus. In dehydration from heat cramps[14] serum protein concentrations over 10 grams per cent have been observed. In lymphogranuloma inguinale, the increase may be as great. The highest serum protein we have observed was in a patient with multiple myeloma, however, and concentrations as great as 14 grams per cent are not unique. In such conditions, the principal increase is in the globulin fraction.

A decreased concentration of serum protein may be observed in hydration, such as follows excessive amounts of parenteral fluid and in nephrosis, medical shock[15] and malnutrition. If the serum protein concentration falls below 5.0 grams per cent, formation of subcutaneous edema may be expected. In shock, whole blood transfusions for rapid replacement of protein loss is indicated. In nephrosis, a high protein diet of animal protein is frequently beneficial.

URIC ACID

Gout, leukemia and advanced renal failure are generally associated with a concentration of serum uric acid above 6 mgm. per cent. So helpful is the serum uric acid concentration in the diagnosis of unexplained rheumatism, it is believed that all patients with arthritis should have this constituent determined at least once. In gout[16], the elevated uric acid is of considerable diagnostic aid. Neither changes in concentration during treatment nor the absolute level of uric acid, however, are reliable for prognosis, or appear to have any direct correlation with the frequency of acute attacks and the severity of the disease. In leukemia and renal insufficiency, the elevation of serum uric acid is a relatively late finding, and offers little additional information. These two conditions are mentioned to caution against making a diagnosis of gout with an elevated uric acid **per se**. It must not be forgotten that renal failure may develop late in the course of chronic gout, but at this stage of the disease subcutaneous tophi have appeared and the diagnosis should not be difficult.

NON-PROTEIN NITROGEN

Protein and non-protein substances are the two sources of nitrogen in the serum. The nitrogen substances of non-protein origin which have been identified in normal serum include urea, ammonia, amino acid, creatinine and uric acid. The total concentration should not exceed 35 mgm. per cent. This value is equivalent to approximately 15 mgm. per cent of urea nitrogen. In most cases of renal failure, adequate information may be obtained from a determination of the total non-protein nitrogen content without individual determination of urea, creatinine and uric acid. It should be mentioned parenthetically that the N.P.N. content should not be taken as the sole index of renal efficiency, but should be complemented by a phenolsulphnephthalein excretion test and a urine concentration test.

Elevation of the serum N.P.N. may be functional or physiological or it may be associated with irreparable pathological changes in the kidneys. Within limits, the N.P.N. level in the serum is a function of nitrogen metabolism and urinary volume. It is possible in most patients to lower the serum level by restricting protein intake or increasing urinary output. Such a sequence of events should be interpreted as enhancement of nitrogen excretion and should not mislead the observer into assuming that renal damage has been repaired.

An elevated N.P.N. which is not associated with pathological changes in the kidneys may be noted in several dyscrasias of which dehydration is the most common. In patients severely afflicted with heat cramps, the concentration of non-protein nitrogen may be elevated above 100 mgm. per cent. During convalescence, this value returns to normal and subsequent renal function studies fail to indicate any evidence of irreparable pathology. In diabetic acidosis and coma, acute infection, surgical shock, gastrointestinal bleeding, intestinal obstruction and prolonged diarrhea, there may be a significant elevation of the non-protein nitrogen without subsequent evidence of kidney failure. It must not be forgotten that pyelonephritis or chronic Bright's disease may complicate any of these conditions. In acute yellow atrophy of the liver, an elevation of the non-protein nitrogen may be intimately related to the fundamental disturbance rather than follow as a secondary occurrence.

In chronic nephritis, an increase in concentration of N.P.N. may be a late manifestation. The absolute level of this constituent should not be stressed, emphasis should rather be placed upon the rate and direction of change. A decreasing N.P.N. at a moderately high level may carry with it a better prognosis than one which increases in spite of treatment. Acute toxic nephritis with anuria may have extremely high non-protein nitrogen levels with subsequent satisfactory recovery. Heart failure **per se** rarely produces azotemia and when this combination is observed, renal damage may be presumed.

CHOLESTEROL

The substances in the blood classified as lipoids include, 1) true fats, 2) lipins, and 3) unsaponifiable material such as the sterols. The true

fats, oleic, palmitic and stearic acids are not easily determined quantitatively in the blood. Lecithin, one of the lipins, may be determined, but it gives us a modicum of useful knowledge. Cholesterol, a constituent of the third group, has been extensively studied and changes in concentration in various diseases have been satisfactorily defined. Early in starvation, cholesterol concentration may be increased; if starvation is prolonged, it is decreased. Patients with inadequately treated diabetes mellitus, lipoid nephrosis or hypothroidism may have a high cholesterol content. In hyperthyroidism, the content may be below normal. It has been hoped the cholesterol determinations would be of value in differentiating various liver and gall bladder disorders. At present this hope has not been fulfilled.

TOTAL BILIRUBIN

The total bilirubin content without precipitation of serum proteins as determined by the Evelyn photocolorimeter is somewhat higher than with other methods. With the photocolorimeter it is possible to follow development of color as well as type of reaction. The concentration of total bilirubin may be greatest in obstructive jaundice and acute yellow atrophy of the liver. In both conditions, the direct reaction is prompt and predominent. Hemolytic jaundice has only a slight increase in concentration of total bilirubin with a small direct percentage. Icterus neonatorum has somewhat higher content of bilirubin but the direct percentage is negligible.

BLOOD SUGAR

Since the method for the determination of this constituent was one of the first introduced into clinical chemistry it has held an enviable popularity. The determination is probably performed unnecessarily on innumerable occasions at the expense of other determinations which are as useful and as important. A glucose tolerance curve is of value in diagnosing renal glycosuria and pituitary hyperglycemia. Chronic nephritis, gall bladder disease, cirrhosis of the liver and rheumatoid arthritis likewise may be accompanied by a diminished tolerance to glucose. In most patients with diabetes mellitus, a glucose tolerance test contributes little to the diagnosis or prognosis. Hypoglycemia may be observed in insulin shock, hyperinsulinism from an islet tumor of the pancreas, Simmond's cachexia, Addison's disease and starvation.

OXYGEN CAPACITY

Probably the most accurate method of measuring the concentration of oxygen carrying hemoglobin (O_2) is with the Van Slyke apparatus. This method measures directly the maximum amount of oxygen which is capable of being carried by a known quantity of hemoglobin and obviates any mathematical formula to transfer it into other terms. By oxygen capacity is meant the number of cc's of oxygen which will combine with 100 cc. of whole blood in room air. In health, this is directly proportional to cell volume. In anemia, the relation of oxygen capacity to cell volume varies and may be of diagnostic significance. If hemoglobin concentration only is wanted without oxygen carrying capacity, the photocolorimeter is most practical. With this apparatus, the concentration of hemoglobin may be determined on one drop of whole blood in less than one minute with an accuracy greater than 90 per cent.

In mentioning oxygen capacity, this term should be distinguished from oxygen content. The oxygen capacity for venous blood is essentially the same as for arterial blood. The oxygen content, however, which is the amount of oxygen carried by hemoglobin at any time in any vessel varies between venous and arterial blood. The ratio of oxygen content to oxygen capacity is called per cent saturation. In healthy persons, arterial blood is about 95 per cent saturated. In anoxemic states, as pneumonia, congenital heart disease, and pulmonary fibrosis, in healthy persons at high altitude, and in cirrhosis of the liver this value may decrease. In polycythemia vera with a marked increase in oxygen capacity, the saturation of arterial blood is normal. This may be useful in differentiating between polycythemia vera, congenital heart disease and pulmonary fibrosis, in short, between primary and secondary polycythemia.

VITAMIN C

The normal concentration of Vitamin C in healthy persons is about 1.0 mgm. per cent or more. With the development of clinical signs of scurvy, this may decrease to 0.5 mgm. per cent. Considerably lower concentrations than this, however, have been observed in patients without scurvy. Further study will probably confirm the impression that a poorly selected diet as well as inadequate absorption of a properly selected diet will lead to low serum concentrations of this vitamin. In any acute infection with fever, as the common cold and pneumonia, the serum concentration rapidly sinks.

SULPHANILAMIDE

With the increased use of this drug in the treatment of many types of infection, satisfactory determinations of the blood level are indispensable. Specific concentrations will not be stated because of our rapidly expanding knowledge regarding its use. Suffice it to say, many failures from its use in the past may be attributed to inadequate blood concentrations which are not appreciated unless the level in the blood is followed regularly during treatment.

CONCLUSION

I have not presumed in any measure to embrace the field of clinical chemistry. I have purposely avoided such important subjects as serology, and examination of urine, spinal fluid and gastric contents. An attempt has been made, however, to summarize chemical changes in several pathological conditions. The progressive physician welcomes new tools, not because they simplify diagnosis and treatment, but because they increase his usefulness and extend the art and practice of medicine.

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A patient passed a giant ureteral calculus, nearly two inches long and one inch in diameter, weighing six and one-quarter grams. The process evidently consumed several years, and the patient had no morphin or cystoscopic treatments to help him. The stone was removed from the bladder by a cystotomy, and the patient apparently was none the worse for the experience.—W. T. Briggs, Lexington, Kentucky.

Diet and Dental Caries

Unquestionably, during the developmental period at least, the provision of adequate amounts of inorganic salts and activators of inorganic salt metabolism such as sunlight, viosterol, and cod-liver oil is highly important for the formation of good bones and teeth, but there is no adequate evidence that the provision of any or all of these principles is of any practical value in the prevention of dental caries.

Although the Michigan group were unable to obtain any appreciable control of dental disease by the addition of minerals and vitamins to the diet, they have obtained striking and highly gratifying results by the elimination of sugar and starch from the daily dietary intake. In this manner the Lactobacillus count may be promptly lowered and dental caries may be definitely arrested in a great majority of cases. In some the withholding of sugar alone will suffice, but in others it is necessary also to reduce the starch. As previously mentioned, we have observed over a period of several years a group of approximately 300 children in an institution where the feeding is closely supervised. These children have received a diet that was nutritionally unsatisfactory and did not contain adequate amounts of the protective food factors. Although the total diet was nearly 50 per cent starch, practically all free sugar was eliminated. No sugar was allowed on cereals or in beverages and only a minimum amount was used in cooking to make foods palatable. All forms of candy and sweetened desserts were prohibited. It was found that the children so fed were in good physical condition with but slight evidences of undernutrition and that 80 to 90 per cent of them were practically free from oral acidophilus and dental caries. These figures are much higher than any other human experimentation in caries control thus far reported. A small number, probably those who were highly susceptible, continued to have a moderate growth of L. acidophilus and occasional dental caries. The great majority showed every evidence of an arrest of dental disease.

When candy and free sugar were fed to a group of these children the salivary acidophilus was immediately excited to a high degree of activity and after a period of several months new dental caries appeared. In a few individuals who were definitely caries-free, the acidophilus counts remained low in spite of the increased carbohydrate intake. In them dental caries did not occur. These same observations have been made on children in other institutions and in private homes.—Russell W. Bunting, D.D.S., Ann Arbor, Mich.; N. Y. State Jour. of Med., Jan. 1, 1939.

Recent Advances In Gynecology

PHILLIPS KAY CHAMPION, M.D.

THE proof of merit is to stand the test of time and clinical use. Accordingly I have attempted to select viewpoints that emanate more from groups of men than solitary workers.

TRICHOMONA VAGINITIS

This interesting entity has received more than its share of space in the medical literature. The various therapeutic agents new and old, with a few exceptions, may be divided into three groups:

1. Arsenical derivatives such as carbarsone[1], aldarsone[2].
2. Physiological powders and douches such as acid douches[3], lactose with citric powders and glucose-lactose tablets.
3. Chemicals such as devegan, tincture metaphen, tincture merthiolate, bichloride of mercury and silver picrate. The latter enjoys wide favor and appears to be one of the most reliable. Consensus of opinion is that any of the tried methods diligently pursued will give cures in 90 per cent of the cases while the remaining 10 per cent remain refractive to treatment. In the latter, one must eliminate foci of infection from the patient's rectum, urethra and bladder, and from the husband's urethra and prostate. The silver picrate treatment briefly consists of insufflation of the vagina with 1 per cent silver picrate in kaolin at weekly intervals, and nightly insertion of boraglyceride-gelatine suppositories containing gr. 2 of silver picrate.

THRUSH

H. G. Hesseltine[5, 6] realizing that thrush is far more frequent clinically than formerly suspected experimentally tested the fungicidal action of various compounds with monila albicans. Nascent iodine proved to be the most active.

He recommends potassium iodine and potassium iodate in ratio of 6.2 to 1.; 0.25 grams of the mixture is suspended in neutral kaolin and placed in capsules which are nightly inserted into the vagina. In addition the vagina is painted with ½ strength lugol once a week. The old treatment of using 1 per cent gentian violet is almost as efficacious but requires daily office visits.

VAGINAL SECRETIONS

Karnaky and others have shown beyond all doubt that the normal vaginal reaction is definitely acid. Also, that a lowering of the glycogen[16, 17] content of the epithelium and increased alkalinity is concomitant with pathological discharge from the vagina. The doederlein bacillus best thrives in a pH of about 4.0. Accordingly acid douches are advocated. Lactic acid, acetic acid or alum may be used. The familiar soda douche has thus been shown to be contrary to the normal physiology of the vagina and should be replaced by acid douches.

Read before the Montgomery County Medical Society April 8, 1938.

The Author

• Dr. Champion, Dayton, Ohio, is a graduate of Cornell University Medical College, 1933; member Dayton Obstetrical Society; obstetrical staff, Good Samaritan and Miami Valley Hospitals, Dayton; formerly resident physician (obstetrics and gynecology), St. Louis Maternity and Barnes Hospitals, St. Louis; senior teaching fellow in gynecology at Louisiana State Medical School at Charity Hospital, New Orleans.

ESSENTIAL DYSMENORRHEA

Attempts to alleviate the sufferings of the patient with essential dysmenorrhea has, of recent years been shifted gradually from surgical procedure to the use of endocrine therapy, and while results are improving, they are still far from satisfactory. In attacking this problem to best insure good results the gynecologist must vary his procedure with the case encountered. Measures of a general nature, as good hygiene and exercise should be utilized in addition to any specific remedy. The asthetic,[9] slender nullipara with hypoplastic genitalia and with a history of irregular menses responds best to estrogenic substances. The younger the patient the better is the response of the uterine musculature. The vigorous athletic girl[9] is frequently benefited by progesterone, one rabbit unit every other day starting one to two weeks before the onset of menstruation.

Many feel that the reluctance of the medical profession to utilize divided small doses of X-ray to the pituitary gland has resulted in the loss of a valuable therapeutic agent[8]. F. Holtz[10] obtained good results in 12 out of 29 cases with dilation of the cervix and concluded that this procedure is of limited therapeutic value. Also, he feels that curettement and packing are frequently followed by infection and are thus dangerous and may interfere with good results. Greenhill says that "the favorable effects produced by dilation of the cervix are almost certainly not due to enlarging the cervical canal, because menstrual blood can readily escape from the uterus in practically all cases, even those with tiny openings in the cervical canal. The beneficial effect of dilation is most likely due to injury to some of the sensory nerves posterior to the cervix". W. H. Weir[11] is favorable to the use of the stem pessary and feels that its most important function is to stimulate the normal

rhythmic muscle contraction which induces a better blood supply and increased menses. He obtained complete relief in 153 out of 234 cases. The use of resection of the presacral nerve should be regulated to those cases which have proved refractive to all other forms of treatment and should be used only as a last resort.

ASCHEIM-ZONDEK TESTS

False positive Ascheim Zondek tests have always excited considerable interest. Frigyesi[12] reported false positives in two out of four patients with tubercular salpingitis. Van Latzka[13] corroborated these findings and suggests that conditions other than pregnancy can increase the gonadtropic hormones in the urine as tubercular salpingitis. Greenhill emphasizes that positive A-Z test in the presence of bilateral inflammatory masses is strongly suggestive of acid-fast infection. Treatment with oxypneumoperitoneum, X-ray and climatotherapy is equally efficacious as laparotomy.

Kido[14] definitely showed by animal experimentation that the human chorionic epithelium produces the hormone responsible for the A-Z reaction. Evans[15] et al determined the quantitative level of gonadtropic hormones in the urine of six normal pregnancies and showed a definite high peak which occurred at the time of the second expected, but missed menstrual period. One must keep this in mind in diagnosing hydatidiform mole and chorioepithelioma.

GYNECOLOGICAL ENDOCRINOLOGY

There appears to have occurred a solidification of previous facts and findings which appear worthy of repetition. Dosage is gradually becoming standardized, but many authorities still use widely different quantities. Factors influencing this are the varying potency and different units of standardization plus an incomplete knowledge of the action of the hormones and an inability to correctly interpret clinical results. Still the most trustworthy is thyroid. Next in order of reliability are the estrogenes, progesterones, and the prolans. Anterior pituitary gonadtropic hormones while commercially produced are not yet reliable or potent. Of decided interest to the practitioner is the steady decline in cost of the various preparations, and the prospect of a far greater reduction. This is due to the possibility of their synthetic[18] preparation and the close relationship of estrogen and progesterone to the sterols. Progesterone has been synthesized from pregnyl, a subtsance found in pregnant urine, where as up to now corpus luteum has been its only source. Of interest to science is the similarity of the estrogenes to certain carcinogenic substances, particularly the tar derivatives. This recalled Loebs' conclusion that estrogenic substances have been demonstrated to be carcinogenic to tissues and organs which are normally under the physiologic control of estrin. According to Greenhill[10] the correctness of this relationship remains sub judice.

The question of the relationship between the uterus and ovaries has recently been raised by French writers[19, 20]. They feel that part of the uterus should be left in situ whenever possible as this insures continued function of the remaining ovaries. However, they do not substantiate these statements by controlled series.

Reeh[21] reports the condition of galactorrhea which is the secretion of milk outside the puerperal state as in virgins, castrates, and menopause. Lactation does not occur in the pregnant woman as long as the placenta is retained due to the inhibiting effect of the estrogenes on prolactin. In these conditions the author prescribes thyroid and estrogenic substances. The use of estrin thus appears to be more physiological in causing cessation of lactation than the use of camphor in oil, tight breast binder, and restriction of fluids.

Mazer and Israel[22] have briefly outlined the accepted therapeutic indications of estrogen, which are:

1. To overcome uterine hypoplasia, resulting from deficiencies of estrogen, as in amenorrhea, oligomenorrhea, dysmenorrhea and occasionally sterility.
2. To inhibit one or more of the several functions of the anterior pituitary by producing hyperestrinemia, as in menopausal syndrome, premenstrual migraine, and selected cases of diabetes mellitus.
3. To produce local growth effect on vaginal mucosa of children suffering from vulvovaginitis, and in post menopausal women suffering with senile vaginitis. For this purpose local application seems more efficacious.
4. To evoke pituitary-ovarian response in cases of severe amenorrhea by employing intermittingly massive doses as 300,000 rat units in a period of one week.

Progesterone is of benefit in the following conditions:

1. In the relief of certain types of dysmenorrhea.
2. In treatment of certain types of abortion.
3. In inducing menstruation in cases of primary and secondary amenorrhea after preliminary use of estrogenic hormone.
4. In the treatment of functional menorrhagia.
5. In the treatment of selected cases of sterility.

Prolans are of value in the treatment of the following:

1. Functional menorrhagia.
2. Treatment of amenorrhea and oligomenorrhea if caused by pituitary failure in conjunction with estrogenic substances.
3. Occasionally in the treatment of certain types of abortion in conjunction wtih progesterone.
4. Treatment of cryptorchidism.

To the above lists may be added many additional indications whose definite value, however is still not proved.

GYNECOLOGICAL SURGERY

During the last year or two the literature has been inundated with articles as regard treatment of injuries to the pelvic floor. This impetus is probably due to better anatomical knowledge of the pelvic supports. Opinions continue to vary in different parts of the country and with different gynecologists. Accordingly the following statements are submitted with a certain amount of hesitancy. Vaginal hysterectomy for third degree prolapse-procidentia is still advocated by the great majority. The Manchester or Fothergill operation with the recent modification by Salmon[25] appears suited in first and second degree prolapse, particularly if future pregnancies are anticipated.

The Salmon[25] parametrial fixation operation consists of the following steps:

1. Amputation of the cervix.
2. Separation of the so-called bladder pillars and if necessary the cardinal ligaments, the latter in procidentia, from the uterus and their reinsertion higher and anteriorly on the uterus.
3. The use of a parametrial fixation suture which passes through the base of the cardinal ligaments and cervix.
4. The covering of the amputated cervix with mucous membrane in similar fashion as in the Sturmdorf operation, only here four of the Sturmdorf sutures are placed at 12, 3, 6 and 9.

The Watkins-Schauta-Wertheim interposition operation is most satisfactory in first and second degree prolapse with marked cystocele. Richardson[28] devised a complex procedure using both the parametrial fixation principle and the interposition idea with removal of the diseased portion of the uterus, the fundus and cervix, but retaining the internal os with its attachments to the cardinal ligaments. He adds that the remaining portion may be opened and the endocervical tissue either excised or touched with the cautery if desired. This procedure has proved satisfactory in the treatment of practically all vaginal hernias. In the aged when no further demands will be made on the sexual function of the vaginia, total colpectomy or Le-Fort colpocleisis are ideally suited. Cystoceles, large or small if unaccompanied by prolapse are generally subjected to one of the several well established anterior colporrophy repairs or the interposition operation. All of the above procedures to be successful require an adequate perineorrhaphy.

Two new types of operations have been introduced for the treatment of incontinence of urine. Kennedy[26, 27] in great detail has studied the mechanism of voiding in the normal and incontinent individual. Repair of this disturbance consists in carefully separating the urethra from the rami of the pubic bones and then plicating the urethral wall in the midline with mattress sutures to prevent reattachment to the rami. Several sutures are placed in the voluntary sphincter-levator ani muscle lying beneath and laterally to the urethra to restore this muscle to normal function.

Roysten and Rose[28] feeling that certain cases of incontinence are due to the separation of the internal sphincter from the trigone of the bladder advocate in repair work the rejoining of these structures. To facilitate the location of the internal sphincter a mushroom catheter is utilized.

Norman F. Miller and Willis Brown[29] report the results of treating 38 cases of complete perineal tears since 1931 by the paradoxical operation. This consists of laying down a "V" shaped flap of mucous membrane from the vagina, the base of the "V" lies at the rectal-vaginal junction. In addition, they cut the anal sphincter. The advantages of this procedure are: 1. Cutting the sphincter relieves tension; 2. The flap provides against any deficiency in the posterior vaginal wall; 3. Avoids contamination as far as possible.

J. P. Greenhill[30] sent out questionnaires to all members of the American Gynecological Society and the American Association of Obstetricians, Gynecologists and Abdominal Surgeons in an attempt to correctly estimate the efficacy of salpingostomy and tubal implantation to correct sterility. There were 107 replies. Out of 818 plastic operations performed 54, or 6.6 per cent, resulted in pregnancies. Of these 54, 36 or 66 per cent resulted in live babies, 18.5 per cent in abortion and 14.8 per cent in ectopic pregnancies. Therefore the operations performed were successful in only 4.4 per cent of the cases.

UTERINE CANCER

As about 90 per cent of uterine cancer manifests itself in the cervix as squamous cell carcinoma it is permissible to devote this discussion to the prevention and treatment of this condition.

The past seven years have witnessed great advance in the technique of radium treatment with the result that the optimum of this type of therapy has been practically reached. The other avenue of approach at present in increasing the survival rate is prophylaxis. Persistent efforts to educate the medical profession continues. Schiller and Novak[31] both feel that frequently cervical cancer develops very slowly over a period of years, during which time it is possible to make a correct diagnosis. The Schiller iodine test is helpful in localizing the proper zone to take the biopsy, but as its presence depends on the absence of glycogen in the vaginal mucous membrane many other conditions besides cancer will give a positive reaction. H. Schmitz[6] also stresses early diagnosis and eradication of all abnormal conditions in the cervix. He advises routine vaginal examinations in one's clientele. Conization of the cervix as it also gives an excellent biopsy is preferable to cauterization. The frequency with which biopsies return diagnosed early cancer in

cases of apparent cervicitis is too well known to gynecologists to warrant further discussion. As Schiller points out an incidence of 2 to 3 per cent is ample reward for the extra trouble necessary to take a biopsy.

In the Western Hemisphere, radium and X-ray treatment of cervical carcinoma has supplanted the Wertheim operation. In England[10] two centers are still utilizing operative procedures, Shaw at Manchester University and Victor Bonney. In spite of the great skill of Bonney[33] his statistics published in 1935 show an operative death rate of 14 per cent and a five year survival rate of 39 per cent. One must realize that these figures are derived from the operable cases. Part of Bonney's high mortality rate is possibly due to extending his indications for operation, but even so, better results may be attained with radium therapy which carries a negligible mortality rate and gives much less discomfort to the patient. W. P. Healy[32] of Memorial Hospital, New York City, advocates the following plan of treatment which is varied to meet the individual case. X-ray therapy is given through six portals until 1,500 roentgen units have been administered to each portal, and a total of 9,000 roentgen units has been reached. Healey stresses the advantage of giving part of this, 6,000 roentgen units previous to the radium, as 200 roentgen units daily to two different portals until the required amount is reached. 1,500 milligram hours of radium is applied first in the form of a bomb to the cervix followed the next day by 3,000 milligram hours of radium intrauterine.

The application consists of two radium capsules of unequal strength arranged in tandem, the lower capsule being twice the strength of the upper. This gives a total of 4,500 milligram hours which has been shown to be the minimal efficacious initial dose. The radium is screened with 1 millimeter of platinum which is encased in rubber. Memorial Hospital is now using a 200 kilovolt machine with a 70 center meter target skin distance with a filtration of ½ millimeter of copper.

Schmitz in his clinic for the last three years has been utilizing a 800 kilovolt machine, his results, so far have proved promising.

430 FIDELITY BUILDING.

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Angina Pectoris

JOHN T. QUIRK, M.D.

IN THIS paper angina pectoris is used to designate a symptom of coronary insufficiency, with paroxysmal retrosternal oppression or pain, with or without radiation, and appearing for the first time on effort, especially walking, either after a meal, in cold weather or up a hill, lasting a few minutes and relieved by rest or the nitrites.

Apparently the incidence of angina pectoris is increasing. In 1867 Austin Flint[1] stated he had not seen a single case in a five year period. In 1934 P. D. White[2] encountered 100 new patients with undoubted angina pectoris within eight months and as many as three new cases in a single day.

The observations reported in this paper cover 65 cases of angina pectoris. There were 53 males and 12 females. The youngest was 32 years of age and the oldest 92 years. Forty-four cases occurred in the fifth and sixth decade. The duration of angina varied from three weeks to fifteen years. The following occupations were represented: Physician, dentist, minister, writer, school teacher, business executive, skilled laborer, farmer, housewife, and common laborer. It seems more frequent in those individuals in whom mental and physical strain is great. Angina pectoris is not a glamorous or spectacular death of a heroic figure. It attacks individuals in all walks of life.

The onset of the attack was sudden in all cases. The patients describe their sensations as pressure, constriction, pain, strangling, burning, fullness, aching, terrible weight "like a truck on my chest." One school teacher said, "Due to the nothingness of words, I cannot describe this terrible sensation".

The term retrosternal as here used means that area extending from the suprasternal notch to the xyphoid and extending about one inch laterally from each border of the sternum. The distress was retrosternal without radiation in 20 cases, retrosternal and down left arm in 23, retrosternal and down both arms in 19. In two cases it started in the region of the seventh cervical vertebra, radiated into the left mandible, down both arms, and through to the retrosternal region. In one case it started in the left wrist, radiated up the left arm and localized in the retrosternal region. The pain generally radiates down the ulnar aspect of the arms, to the elbow or into the hands and at the distal point of its radiation it may be felt as a numbness or tingling sensation. There is ordinarily some retrosternal localization regardless of the origin of the pain. In no case was the pain limited to the cardiac apical region. The sensation is smooth or continuous, that is, it does not throb nor fluctuate and is not colicky in character.

The duration of the attack was a few minutes. This is especially true early in the disease and in the ones brought on by effort. In some patients the attacks were produced by the method of Riseman and Stern.[3] The patient's opinion of the duration of the attack is usually longer than the timed duration of the induced attack. One patient insisted repeatedly that the attacks lasted five minutes, when the duration of the induced attack was one minute and fifty-eight seconds. Riseman and Brown[4] found that 97 per cent of the induced attacks measured were less than three minutes in duration. The attacks later in the disease and especially those coming on at rest are of longer duration. In patients with leutic aortitis, severe anemia, hyperthyroidism, paroxysmal rapid heart action, and aortic valvular disease, the attacks are of longer duration.

The attitude during the attack is one of quietness. The patient may be rigid with slight pallor, and sweating may occur. Some raise their hands toward their heart, or assume a position of almost immobility. Attacks coming on while in bed cause the patient to get out of bed and assume an upright position. This quietness that prevails is certainly in contradistinction to the agitated maneuvers frequently seen in cardiac neurosis.

Walking, especially after a meal, up a hill, or against a wind are common precipitating factors. Such statements as, "my car was in the garage being repaired, I walked home up a slight grade and against a wind and experienced my first attack"; "after eating a Dutch lunch I walked home and had my first attack of what I considered indigestion". Emotional factors play an important role, chiefly anger and excitement. Later in the disease trivial

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The Author

● Dr. Quirk, Piqua, Ohio, is a graduate of St. Louis University School of Medicine, 1924; fellow American College of Physicians; member, American Heart Association; president of staff at Piqua Memorial Hospital.

factors produce attacks and some occur spontaneously without apparent cause.

Fifty-five patients stated that if they walked after a meal the attack occurred more quickly. One patient of this group would walk to lunch in comfort, but after his meal, on his return to his office he would stop regularly and window-shop at approximately the same window to get relief from an anginal attack. A business man has dinner at a restaurant, finds his car parked in a tight place, and in steering away from the curb experiences retrosternal pain. Wayne and Graybiel[5] have shown that an ordinary meal reduces the exercise tolerance by 25 per cent. In many instances the angina pectoris is interpreted as indigestion. I do not wish to imply that food is the cause of angina pectoris. But food, plus effort, in a patient with coronary insufficiency has resulted in an attack of angina pectoris.

Forty-six patients stated that cold weather or walking against a wind produced attacks more quickly.

The angor animi or fear of impending dissolution seems to have been interwoven with an attack of angina pectoris and for this reason definite diagnostic importance has been attached to it. In only three patients was there any evidence of angor animi being present. In all probability the nervous makeup of the patient or the fact that the idea has been suggested to him plays a part in this fear.

There seems to be a familial tendency in angina pectoris. Three brothers have angina pectoris, father died of angina at 47 years of age, and mother at 69 of congestive heart failure. In twelve other cases one or more of the immediate family had a history of coronary disease.

Taking 160 mm. of Hg. systolic and 100 mm. diastolic or over as hypertension, there were 30 cases that had hypertension. Nine of the twelve females had hypertension. The three with normal blood pressure were over 50 years of age. Angina pectoris is not common in the female under 50 years of age especially in the absence of hypertension.

Premature beats occurred in 16 cases, bigeminal rhythm in two, paroxysmal auricular fibrillation in one.

Electrocardiograms were taken in 57 cases. The tracings were normal in 19, and in 38 indicative of myocardial pathology.

There were four cases of aortic stenosis and insufficiency, all of which occurred in patients over 60 years of age. There was one case of leutic aortic insufficiency.

The health of patients with uncomplicated angina pectoris is generally good. These patients boast of how hard they have worked, the few times they have consulted a physician, and that between attacks they feel very well.

The presence of syphilis, angina at rest, cardiac enlargement, congestive failure and marked changes in the electro-cardiogram appears to be unfavorable.

Nitroglycerin in tablet form is the best remedy for the treatment of the attack. The patient should stop still and place a tablet under the tongue. Tablets with a lactose base dissolve readily and are absorbed. A few people are sensitive to the drug. Proger and Ayman[6] have reported collapse following its use, and these alarming symptoms may occur after a sublingual dose of 1/100 grain. The initial dose should be 1/400 grain and preferably administered under personal supervision. The smallest dose that gives relief and no reaction is the one of choice. It is surprising how often a tablet of 1/200 or 1/300 grain will serve the purpose well. The tablets should be in a well stoppered glass vial and immediately available at all times so the patient can place one under his tongue at the first intimation of an attack.

The regulation of the patient's activities is very important in the prevention of the attacks. The patient should live within his tolerance, that is, the amount of exercise that does not produce attacks. Avoid anger, hurry and worry. Each patient presents special problems and a sympathetic but optimistic discussion of these problems is very helpful. There is no special diet, but small meals and food that do not favor gas formation is indicated. Rest one hour after a meal is desirable. In those overweight, diminished caloric intake to secure weight reduction, is sometimes helpful.

If leutic aortitis, anemia, or hyperthyroidism is present these diseases should receive proper treatment.

Sedatives diminish nervous excitability. Sodium bromide, chloral hydrate, or phenobarbital generally accomplish this purpose. Quinidine sulfate may be used to prevent paroxysms of fibrillation or tachycardia. Quinidine is potentially a dangerous drug and despite the fact that it increases exercise tolerance there should be great caution exercised in its use.

There is contradictory evidence regarding the therapeutic efficacy of the purine derivatives in the treatment of angina pectoris. Theophylline ethylene diamine (aminophyllin) seems to be the one most frequently used. The dosage is 3 grains four times a day. Other theophylline or theobromine compounds may be tried. Erythrol tetranitrate ¼ or ½ grain is sometimes of value.

Seven years ago a patient who was having around 35 attacks of angina a day found that nitroglycerin relieved his attacks. He used 130 tablets of nitroglycerin 1/100 grain the first day. When questioned he stated, "since this medicine relieves the attacks why not take the

tablets often and stop the attacks before they get started?" This patient has averaged about 20 tablets of nitroglycerin 1/100 grain daily for seven years while actively engaged in business. The recent work of Riseman and Brown[7] confirms the therapeutic response obtained seven years ago, by this patient after the frequent dose of nitroglycerin. These investigators have demonstrated an increase in exercise tolerance of over 200 per cent following the administration of nitroglycerin.

Ten patients were given nitroglycerin 1/400 grain every hour and they were able to render themselves free from attacks or greatly reduce their frequency. Fifteen patients were given nitroglycerin 1/200 grain about five minutes before any act that might bring on the distress, such as, before going out in the cold, before bathing, before putting on shoes, before defecation, before walking after a meal. This procedure reduced the number of attacks and was very beneficial. There has been no ill effects from the frequent use of nitroglycerin. In some patients it seemed to make life worth living.

SUMMARY

A good detailed history is essential in the diagnosis of angina pectoris. The patient's description of the distress, the retrosternal location, its radiation, the precipitating factors, and its relief by rest are very important.

Angor animi occurs infrequently and has very little or no diagnostic value.

Angina pectoris is uncommon in females under 50 years of age and especially so in the absence of hypertension.

The prognosis of the individual case is uncertain but this should not furnish a basis for hopelessness.

The use of drugs, especially the frequent and judicious use of nitroglycerin, plus regulation of the patients' activities can make anginal life relatively free from distress and may even prolong life.

215 W. Ash St.

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Allergy In Infants

It is possible that early recognition and understanding of the first minor allergic manifestation may prevent or lessen the tendency to develop major allergic symptoms in later life? It is reasonable to assume that, if the infant is not subjected to small or frequent allergic insults from foods, contact or inhalation factors, he may minimize or even possibly avoid major allergic manifestations such as eczema, asthma, hay fever, perennial catarrhal rhinitis and certain gastrointestinal disease.

Twenty-one infants developed allergic symptoms while receiving breast milk. Some of these were also receiving orange juice. When this was discontinued, twelve continued to have symptoms. By elimination of certain foods from the mother's diet it was possible to relieve the symptoms in all but three cases. The baby can be sensitized through breast milk as illustrated in these infants. For instance, one baby developed a face rash whenever the mother had eaten asparagus; another each time the mother took eggs.

There were two types of allergic symptoms: the early minor group, and the major diseases which usually occur later. The first and minor symptoms were primarily of three distinct types and occurred usually before the fourth month:

1. Rash (eczema) ..... 85 cases
2. Vomiting (pylorospasm) ..... 24 cases
3. Gastrointestinal distress, which includes more or less persistent colic, gas, diarrhea and constipation ..... 16 cases

The diagnosis of the offending agent is not always apparent or easy to determine. Painstaking observation of the family, diet and environment are important. The diagnosis of an allergic etiology is based on the following:

1. The family history, as previously mentioned.

2. Observation of the infant, his home, particularly his bedroom, contacts with animals, smoke, toys, clothes, powder, dust and plants must be studied.

3. Elimination of foods is important. This is fairly simple in young infants as the number of foods in the diet are limited. In older children a food diary often gives valuable information.

4. When the above methods have failed to relieve the patient, tests should be performed. They should include foods, epidermals, miscellaneous substances such as orris root, cotton, kapok, pyrethrum, etc. and pollens. Testing, both skin and intradermal, is fairly accurate in infants and gives valuable information. Persistent symptoms require repeated testing. The common foods such as egg, wheat, milk and orange juice are the most frequent offenders. Feathers, wool, silk and powders are often causative factors. — Norman W. Clein, M.D., Seattle, Wash.; Northwest Med. Vol. 38, No. 1, Jan., 1939.

Report of a Case of Beta-Hemolytic Streptococcus Meningitis Treated With Sulfanilamide

WILLIAM H. FALOR, M.D.

IN Akron Children's Hospital from 1928 to 1937 there were 29 cases of meningitis due to streptococcus beta-hemolyticus of which 28 died, a mortality of 96.6 per cent, figures comparable to those of the Hospital for Sick Children in Toronto, viz.: 92 deaths in 93 cases from 1924 to 1936.[1] In July, 1935 Gray[2] could find only 66 authentic cases of recovery from the disease during the 34 years from 1901 to 1935 and concluded that the disease was over 97 per cent fatal.

Causse, Loisseau and Gisselbrecht in February, 1936[3], reported the first case of beta-hemolytic streptococcic meningitis to be cured by the intravenous and oral administration of prontosil in a 46 year old man with meningitis of otitic origin, and during the past two years numerous similar reports have followed. Since such reports are of definite value for the future accurate estimate of not only treatment but prognosis as well, this case of recovery from meningitis of streptococcus beta-hemolytic origin is offered.

CASE REPORT

J. M., a white American girl, 6 years and 11 months of age, weighing 40 pounds, was admitted to Children's Hospital on July 21, 1938, with a complaint of draining ears and earache, with a temperature swinging as high as 103 degrees, of ten days duration. Frequent head colds and earaches during the previous winter were the only contributory aural and respiratory past history; a successful tonsil and adenoid operation was done three years ago. Three weeks prior to admission the patient began to cough and within a few days developed a cervical adenitis which was short lived, but succeeded in two days by dull, aching, persistent supra-orbital and aural pain which continued unchanged until the day of admission. Simultaneously both ears began to drain a thick, profuse, pale yellow discharge and continued so to drain until admission. The girl had lost only a few pounds in weight during this period, and her appetite had not greatly suffered.

Previous illnesses included mild pertussis, measles, and mumps. The patient was one of three children; her birth was 2½ weeks premature, and the only noteworthy family history was of healed pulmonary tuberculosis in the mother.

On admission she was found to be undernourished but quite communicative and did not appear acutely or dangerously ill. Her temperature was 102 degrees. The positive physical findings included sero-purulent non-pulsating drainage from each inflamed membrana tympani. There was neither mastoid nor pre-aural swelling, heat, redness, or tenderness; hearing was diminished by approximately 50 per cent on the left and by 25 per cent on the right. The pupils were equal and regular and there were no muscular disparities. The tonsillar fossae were clean, and there was a minimum of pharyngitis. Several slightly tender 5-10 mm. cervical nodes were palpated. Otherwise the physical examination was negative.

Laboratory tests revealed: The urine was normal. The Kahn and Kline were negative as, too, was the Mantoux test down to 1:200 dilution. The red blood cells numbered 3,380,000 with a hemoglobin content of 10 grams per hundred cubic centimeters. The white blood cells numbered 15,800; 74 per cent were polymorphonuclears with 12 stab forms included, 25 per cent were lymphocytes, and 1 per cent were mononuclears.

Within the ensuing five days of treatment the aural discharges stopped, the patient began to eat and feel and appear much improved. There was still a low grade hyperthermia to indicate the presence of an active focus.

On the evening of the 27th the temperature gyrated to 105 degrees, and examination disclosed a bulging left membrana tympani which was immediately punctured releasing a hemorrhago-serous fluid. Another septic swing on July 28th occasioned an X-ray which revealed increased density in the right mastoid cells. Subsequently that day a bilateral simple mastoidectomy disclosed a *definite but moderate degree of halisteresis of both mastoid regions; cultures of both mastoids proved sterile. There was a concurrent leukocytosis to 42,600 with 92 per cent of polymorphonuclears of which 15 per cent were stab forms.

Intravenous administration, twice a day, of 500 cc. of 15 per cent glucose in Hartman's solution was instituted together with a high liquid diet, the patient fortunately being at all times able to take adequate amounts of food and all drugs orally obviating frequent intravenous fluid administration, or continuous glucose-saline solutions as practiced by Silverthorne & Brown[1] and others. Only once, as charted, was the fluid intake allowed to drop below 1,400 cc. per day.

The morning of July 29 the patient's temperature had dropped to 102 degrees, yet she was lethargic but still without signs or symptoms attributable to conditions other than her mastoiditis. The temperature on the 29th and 30th oscillated between 102 and 105 degrees; there was only a small amount of sero-hemorrhagic drainage from the mastoid wounds, and the patient, though slightly irritable, was still quite communicative. There was slight nuchal tenderness on the evening of the 30th, but no changes in reflexes or presence of abnormal neurological

The Author

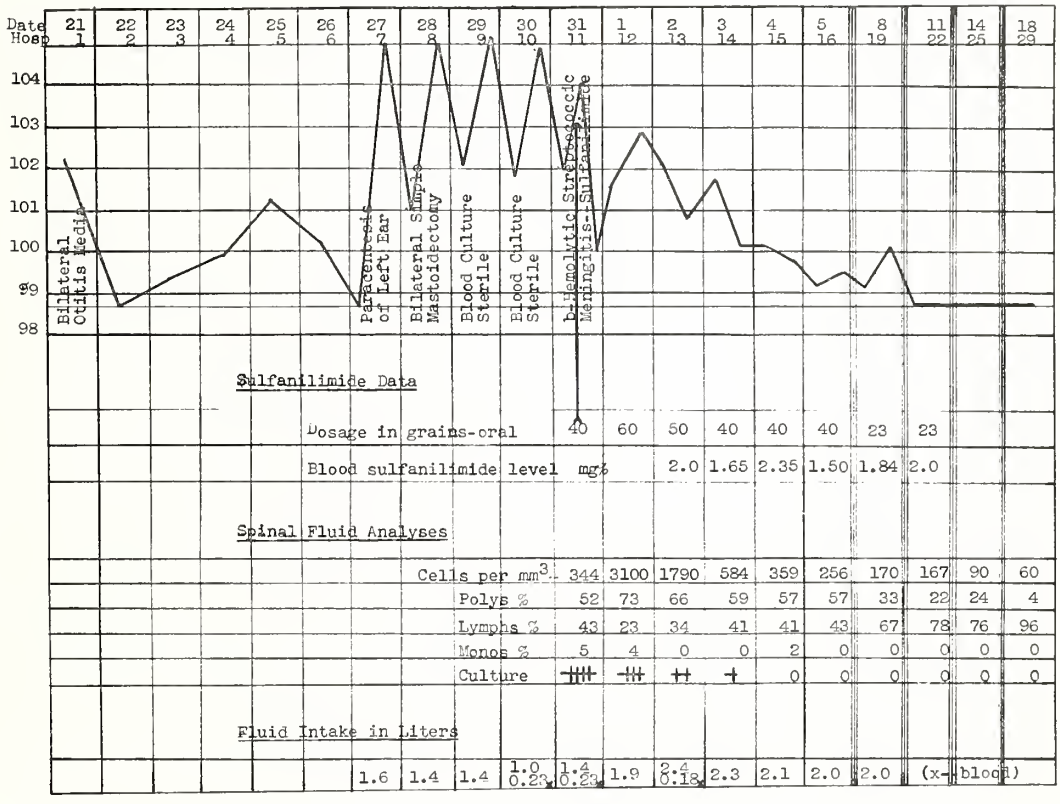
● Dr. Falor, Akron, is a graduate of Western Reserve University School of Medicine, 1938; intern at Akron Children's Hospital.

Submitted September 8, 1938.

From the Pediatric Service of the Children's Hospital, Akron, Ohio.

signs. The hemoglobin precipitantly dropped to 8.5 mg. per cent and transfusions were started.

The following day, July 31, the patient was still lethargic and irritable but would carry on an intelligent though sluggish conversation. Examination revealed a moderate degree of nuchal rigidity, hypo-active patellar and achilles reflexes with a questionably positive Kernig. Spinal drainage was immediately done revealing normal pressure and spinal fluid mechanics with a total cell count of 344 with 52 per cent polys, and on smear the field was loaded with short and long chain streptococci. Spinal fluid culture proved



positive as well. Sulfanilamide, 40 grains in two oral doses was given within the next 12 hours.

The next day, August 1, the maximum temperature had dropped to 102.8 degrees, but the patient remained irritable and neurologically showed only a rigid neck to evidence her meningitis. The spinal fluid cell count had gone to 3,100 cells under 425 mm. water pressure with a marked shift to the left in cell morphology; smear revealed fewer streptococci, the culture being positive. Blood culture again proved sterile. Sulfanilamide dosage: 60 grains in four doses.

On August 2 the patient appeared the same though her temperature dropped and her spinal fluid began to clear—(see chart.) Sulfanilamide, grains 50 in four doses, was given, and the blood sulfanilamide determined to be 2 mg. per cent, after the method of Kamlet[4].

Though far below the optimum blood concentration level suggested by Long[5], et al., the dosage was still in excess of that advised by J. Neal[6, 7], and the dose was reduced on the fourth day to 40 grains, "1 grain per pound"[6, 7]. On the eighth day the dose was reduced to 23 grains and discontinued on August 12, after giving 411 grains over a period of 13 days, without ever during the last 11 days having exceeded a blood level of 2.35 mg. per cent. During this period the patient rapidly improved; daily spinal drainages were done to August 10, the spinal fluid becoming sterile on the fifth day of sulfanilamide with a concurrent steady decrease in cell count and a relative pleocytosis.

The girl continued to improve and by August 14 seemed perfectly normal. She had no complaints, ate well, sat up in bed and read at intervals. Spinal puncture made August 18 revealed a gradual return toward normal—see chart. The child was discharged August 22 apparently cured without any sequellae on her 33rd hospital day.

SUMMARY

1. From 1928 to 1937 there were 29 patients suffering from meningitis due to hemolytic streptococcus admitted to the Akron Children's Hospital. Of these patients 28 died,—a mortality rate of 97 per cent.

2. In a case of post-otitic meningitis of similar origin followed by a bilateral simple mastoidectomy, sulfanilamide, in addition to the customary daily spinal drainage, blood transfusions, and high fluid diet, was given in average initial amounts slightly in excess of a "one grain per-pound" dosage for seven days followed by a de-

creasing dosage for the next four days. Complete recovery followed such treatment.

3. This case is entirely similar to cases previously described and is presented as another cure of meningitis of beta-hemolytic streptococcic origin cured by sulfanilamide.

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Think This Over!

"I cannot understand why so few men attend their county and state medical society meetings. It is not because they are so busy, as the busiest physicians are always found where there is a chance to learn. After years of observation I have reached the conclusion that there are three kinds of physicians who don't attend meetings—(1) the person who has not the ability to plan his work so that he can have an evening for recreation at the meeting; (2) the man who thinks he knows it all, has not read a new book since leaving school, and has no time for reading *The Journal* or other publications; and (3) the man who is afraid he might lose a patient should he leave his office. These three types form the fault-finding group; they complain, but will not come to the meetings and put their shoulders to the wheel, clarify their visions, help remove the faults they see, and become what is most needed by the society and always welcomed by its officers—workers instead of drones or complainers.

"Yes, the opportunity for the present-day physician to be an up-to-date physician is right at his door, and I am not only sorry for those who are missing these opportunities, but for their patients."—John A. Hawkins, M.D., Pittsburgh Medical Bulletin.

Therapeutic Aspects of Cardiac Pain

Medicinal Remedies.—The use of one of the nitrites to relieve an attack of pain is standard practice. Because of its odor, amyl nitrite, in the form of pearls, is unpopular. The tablet of nitroglycerin is convenient and, if fresh, effective. These tablets deteriorate after exposure to the air in from six to eight weeks. The value of nitroglycerin as a prophylactic is not sufficiently appreciated. If a tablet, or even two, be taken just before an anticipated effort or nervous strain, the activity can usually be carried through without discomfort. There is no harm in repeating the dose a number of times during 24 hours. A nitrite, given at regular intervals, has been less effective in my hands than when necessity or prevention served as indications.

Derivatives of theophylline and theobromine are widely used over long periods in the belief that they dilate the coronary arteries. Such an action should prevent vascular spasm and increase the flow of blood through the coronary bed. There is still disagreement as to their value, based upon both clinical and laboratory evidence. Some physicians report that the xanthines diminish the number and intensity of attacks in patients; others find that placebos or mild sedatives are just as effective. In experiments on animals, competent physiologists record no augmentation of coronary flow after injection of one of these substances; equally good observers note a significant increase.

Technical difficulties probably account in part for the discrepancy in the experimental results. Clinically, it is difficult to appraise the effect of a drug upon anginal paroxysms because of the variability with which they occur. For the same reason, cardiac pain induced by exercise or anoxemia is unreliable as an index. Final judgment concerning the value of these drugs must be deferred until more evidence concerning their action is available.—Robert L. Levy, M.D., New York; Pa. Med. Jour., Vol. 42, No. 4, Jan., 1939.

A bladder tumor looked cystoscopically like a gumma. A Wassermann was four plus positive. Luetic treatment was advised, and the bladder growth was to be observed from time to time. One month later, an intestinal obstruction developed; laparotomy revealed the ileum attached to the bladder. In freeing the mass, an abscess was opened, which contained a gauze sponge that must have been left there thirteen years before. The abscess communicated with the bladder. Death followed five days later. The bladder tumor was really a granuloma.—James F. Balch, Indianapolis.

Rare cases lose their rarity by reporting—Fetterman.

Arsine Poisoning: Report of Two Cases

KENNETH D. SMITH, M.D. and T. E. RARDIN, M.D.

ARSENIC poisoning in industry may occur in two ways. First, by absorption of dust from solid arsenic compounds, and second, by absorption of arsenic in the form of a gas, arsine. This report will deal only with the latter.

Arsine (AsH_3) also known as arseniuretted hydrogen, hydrogen arsenide, arsenic trihydrate, arsonia, and arsenous hydride is the most deadly of the inorganic compounds of arsenic. It is formed whenever nascent hydrogen or a hydrocarbon is produced in the presence of soluble arsenic, and is a colorless, exceedingly poisonous gas, with a characteristic odor of garlic. The characteristic odor, however, has not been reported by workmen exposed to it. McNally[1] quoting Teschke states that 300 parts of arsine per million volume of air is fatal with five to ten minutes exposure and that 60 parts per million is dangerous with one-half to one hour exposure. A wide individual variance in susceptibility is known to exist.

Arsine has no commercial value and is not produced except as an accidental by-product of many manufacturing processes. Any metal which is contaminated with arsenic when treated with acid will liberate arsine. Zinc used commercially is always heavily contaminated with arsenic. Iron, lead, antimony, tin, and copper are often contaminated with arsenic as is sulphuric acid made by the chamber process and the hydrochloric acid which is in turn made from it. Thus arsine may be encountered in any process wherein metal is attacked by an acid. The pickling of steel is a common process in the steel industry and one would expect to find arsine poisoning to be common in that industry. Muehlberger and his co-workers[2], after their study of this process, concluded that the danger of arsine poisoning is small so long as the pickling acid is free from arsenic. Hamilton[3] states that pickling metal is a notoriously unhealthy trade and that it seems probable that small amounts of arsine formed from time to time may be responsible for this belief. McNally[4] has found arsine in the air in the pickling of iron and steel.

Arsine may be encountered in various other industrial processes. The flushing and cleaning of tank cars that have contained a heavy acid is admittedly dangerous when the worker enters the car to remove the sludge. In this work, poisoning by the oxides of nitrogen as well as arsine has occurred. In the storage battery industry where the lead antimony grids are immersed in weak sulphuric acid for charging and forming, the possibility of arsine poisoning is present. The commercial production of hydrogen for lighter-than-air craft by the action of hydrochloric acid on powdered zinc is attended by the release of arsine. In the manufacture of aniline dyes and coal-tar drugs, hydrochloric acid and powdered zinc or iron are used in the production of nascent hydrogen to reduce nitrobenzine to aniline. This produces a perfect setting for arsine poisoning. The stripping of galvanizing with hydrochloric acid is a common procedure and it was in this manner that the two cases reported in this paper occurred.

Arsine is the only powerful hemolytic poison encountered in industry, with the exception of the coal tar intermediate, toluyenediamine[5], and the symptoms produced can be explained by hemolysis. It is believed that the arsine being taken up by the blood stream, combines with the hemoglobin. The oxygen in the hemoglobin oxidizes the arsine to arsenic oxide.[5] Hemolysis occurs at the time of this formation of arsenic oxide within the corpuscles. Symptoms of arsine poisoning do not appear until several hours, usually two to eight, after exposure to the gas and usually occur in the following order: weakness, faintness, dyspnoea, nausea, and vomiting. Epigastric pain is a common complaint. There is a marked secondary anemia with the onset of the hemolysis. The severity of this anemia is directly proportionate to the magnitude of the exposure. If death does not occur from hemolysis, jaundice usually supervenes. This jaundice may be hematogenous due to hemolysis, or may be hepatogenous since the gallbladder and the ducts are full of thick bile with an amorphous sediment of bilirubin and crystals.

Sumitted October 4, 1938.

The Authors

● Dr. Smith, Columbus, is a graduate of Ohio State University College of Medicine, 1929; member Industrial Hygiene Section, American Public Health Association; American Association of Industrial Physicians and Surgeons; National Conference of Governmental Industrial Hygienists; chief, Bureau of Occupational Diseases, Ohio Department of Health.

● Dr. Rardin, Columbus, is a graduate of Ohio State University College of Medicine, 1930; instructor in clinical Medicine, Ohio State University.

The bile is too thick to flow out and is resorbed. As the disease progresses the jaundice usually deepens. Hemoglobin, methemoglobin, hematin and occasionally blood itself appears in the urine. The uriniferous tubules become filled with blood and the urine decreases until suppression is complete. When a lethal dose has been absorbed, death usually occurs in two to six days.

CASE REPORTS

I. R. W., a 56 year old white man, whose occupation for the past 30 years had been that of a plater and polisher, was admitted to the medical service of St. Francis Hospital at 9:15 P.M. on January 28, 1938. His admission temperature was 98.6; respiration 20; pulse 80.

Chief Complaint: Inability to urinate and lower abdominal discomfort.

Present Illness: Up until Jan. 20, nine days before admission, this man had been in good health. On that day, while engaged with another metal worker in stripping galvanized iron pipes with commercial muriatic acid, both he and the other man became sick, supposedly from the fumes. He went home about 3:30 in the afternoon, being sick at his stomach and vomited. Two days later the patient was unable to pass any urine and had no desire to urinate. On the third day he began to have discomfort in the lower half of the abdomen together with pain in both groins. He remained at home eight days before coming to the hospital, during which time he passed only a few drops of urine, ate and drank only small quantities and grew steadily weaker. From time to time he had vague abdominal pains, but at no time appeared or felt acutely ill. On admission to the hospital a catheterized urine revealed only 7 or 8 minims in volume in the bladder. Chemically it showed four plus albumin. The specific gravity and sugar were not determined because of the small amount available. Microscopically an occasional white blood cell and cast was found, but no red blood cells were present. The blood examination revealed a marked secondary anemia, the total red cells being 2,050,000 with 45 per cent hemoglobin; total white cells 10,300 with 69 polys, 1 eosinophile, 22 lymphocytes, 2 mononuclears, 3 large monocytes, 1 transitional, and 2 unidentified cells. The red cells also showed a slight variation from the normal in shape. Blood Wassermann was negative. Blood non-protein nitrogen the day after admission was 300 mg. per 100 cc. The two days in the hospital showed a progressive weakness, increase in drowsiness, the passage of only a few drops of urine, some difficulty in swallowing fluids and finally on January 30, late in the afternoon, a mild convulsion with gasping and cyanosis, terminated by death.

Past History: In the past history no clue to the present illness could be obtained. This man had always been in good health. By occupation, he had been a metal worker for the past 30 years. He had had all the usual childhood diseases with no complications; 33 years before he had one attack of jaundice. He had always been constipated, had lost no weight recently and had no familial history of importance. Several years before his left eye had been surgically removed, this being his only surgical history.

Physical Examination: This revealed a well nourished and well developed white male, apparently in no discomfort or pain, but definitely pale in appearance. Temperature, pulse, respirations normal. The blood pressure was 130/78. The skin was negative and the mucous membranes negative except for a mild pallor. Except for the missing left eye, the head showed no abnormalities. Opthalmoscopic examination of the right eye was normal. The teeth were carious and the gums pale. There were no palpable lymphatic glands anywhere in the body. The lungs were normal throughout, and the heart showed no murmurs, accentuations or size variations from normal. The rate was only slightly increased. The abdominal wall was somewhat rigid, but otherwise negative. Genitalia and rectal examinations showed no changes from the normal. Nerological examination was essentially normal. No change from the above findings occurred, except an increasing drowsiness while he remained in the hospital.

Autopsy Report: This was performed the morning following the patient's death. The following is a summary of the positive findings:

Nothing of consequence was found at autopsy grossly except the following:

Both kidneys were slightly enlarged, congested and cloudy. The right kidney had a cortical cyst 5 mm. in diameter. There was an aberrant renal artery to the upper pole of the left kidney. The cortices were not narrowed. The surfaces were smooth and there was no change in the medulla or pelvis. The ureters were not enlarged and showed no abnormalities.

The heart was slightly enlarged, due to slight thickening in the left ventricular myocardium. The endocardium, valves and root of the aorta were negative. There was an atheroma of the anterior descending branch of the left coronary artery, occluding its lumen by one-half, one cm. from its origin. The lumen of the remainder of the vessel was not encroached upon. Other coronary vessels are negative.

The lungs showed a marked edema.

The bladder was normal except for a small diverticulum in the midline of the anterior wall.

Anatomical Diagnosis:

1. Metallic poisoning—probably mercury.
2. Parenchymatous degeneration of the kidneys.
3. Uremia.
4. Pulmonary edema.
5. Diverticulum of the bladder.
6. Aberrant renal artery.
7. Emphysematous blebs of the lungs.
8. Coronary sclerosis.

Microscopical Examination:

Kidneys: The microscopical examination of the kidneys shows no significant changes in the glomeruli or the blood vessels. The tubules show necrosis of the epithelium with collections of cellular debris in the lumina. Calcium has been deposited in some of these tubules. This change is characteristic of mercury poisoning.

The lungs, heart, adrenals, liver, prostate, and pancreas are essentially normal.

Intestinal Tract: The intestines show a necrosis of the superficial epithelium which is probably in part due to postmortem digestion. There is, however, an increase in the number of large phagocytes and granulocytes in the mucosa, indicating a mild enteritis.

Additional Diagnosis:

1. Mild enteritis.
2. Probable mercury poisoning.

Toxicological report:

Analysis of the muriatic acid used in work.

Total solids 5.8 per cent.

Total acidity (as HCl) 3.38 grams HCl per liter.

Total HCl 3.24 grams HCl per liter.

Metals present were arsenic; antimony; zinc; iron; aluminum; tin.

Analysis of the body tissue. Liver tissue was the only one examined.

Arsenic and a slight trace of antimony.

Final diagnosis: After a complete review of all findings in the case, together with the toxicology report, a diagnosis of Arsine Poisoning, resulting in death was made.

II. T. L., a 52 year old white male whose occupation for the past 32 years had been that of an electro-plater and polisher, was first taken ill January 20 while at work.

Chief complaints: Indigestion and headache.

Present illness: Up until the day of the onset the patient had been in good health. On that day while engaged with another worker (R.W.) in stripping galvanized iron pipes with commercial muriatic acid, he became sick. This process in which he was engaged was begun at noon and was in operation about three hours. The other worker became ill first and was forced to quit work. The patient continued his work and emptied the tanks. First symptoms noted were epigastric pains with nausea. Shortly afterwards he noticed a throbbing in the temporal area and a sensation in his chest which he described as a "knot" During this time he became very weak and nervous. His memory of the trip home was vague except that his left arm became numb and his weakness increased. This paresthesia in his left arm disappeared before he reached home. During the evening the patient became progressively weaker. He urinated three or four times during the night and noticed that his urine was bright red and had the appearance of being frank blood. His epigastric pains subsided but the weakness continued. On the second day a marked pallor was noted. In two or three days after the onset, the patient became jaundiced and remained so for three days. A marked constipation developed. Following this, the pallor was again noted. This continued for several weeks and gradually became better. About one week after the onset, the patient developed various paresthesias which he described as rheumatic pains, burning sensations, and cramps. These were present in all the extremities and continued during the entire illness.

Past History: The patient had been in good health previous to the present illness. He had the usual diseases of childhood with no complications. Thirty-five years ago the patient had what he described as a chronic bronchitis with a very severe cough which lasted for several months. He suffered typhoid fever in 1913 and recovery was uneventful. About one year ago he suffered an acute attack of bronchitis and was unable to work for several weeks. The surgical history is negative. He does not drink alcoholic beverages. Family history is of no importance.

Physical examination: The patient was a well developed white male apparently in no pain. Temperature was normal. Pulse and respiration were but slightly increased. The skin and mucous membranes were quite pale. There were no abnormalities of the head or neck. Teeth had been replaced by upper and lower plates. Lymph glands were not palpable. Roughened breath sounds and coarse moist rales were present throughout the lungs. The heart was essentially negative. The abdomen was scaphoid in contour but otherwise normal. Neurological examination was essentially normal. A specimen of urine submitted the second day was almost pure blood.

Progress: The hematuria continued for 24 hours. The pallor of the skin and mucous membranes continued for three days when a marked jaundice supervened. This jaundice continued for three days. The pallor gradually improved during the course of the illness. Chest findings gradually improved and in 10 days the lungs were clear. Temperature remained elevated about 1°F. for a week. The pulse varied between 75 and 100 for 10 days and remained normal. Respiration was never over 25 the first 10 days and thereafter was normal. Extreme weakness continued during the entire period of the illness, gradually improving. All other physical findings were essentially the same as those found at the first examination. The patient resumed work six and a half weeks after the onset. His present health is good.

Diagnosis: Arsine poisoning complicated by toxic polyneuritis during convalescence.

SUMMARY AND CONCLUSIONS

1. The authors have discussed arsine and arsine poisoning.

2. A description of the trade processes where this poison may be encountered is given.

3. Two case reports with one fatality are given.

The environment wherein a person spends much of his life, whether it be in his home or workplace, must of necessity greatly influence both his physical and mental health. For this reason we wish to stress the importance of complete occupational histories and a thorough knowledge of the work process when illnesses of vague or unknown etiology are encountered. Only through these means can a true diagnosis sometimes be made. In Ohio there are almost a million workers employed in potentially dangerous occupations. We feel that an accurate occupational history is as important a routine procedure as a history of past illnesses and family history. It is only in this way that the true occurrence of occupational diseases may be found.

Acknowledgments: The authors are indebted to Dr. F. C. Andrus, pathologist, who performed the autopsy; to Dr. Clayton S. Smith, professor of physiological chemistry, pharmacology and Materia Medica, Ohio State University, who performed the toxicological examinations; and to Dr. E. A. Thrall, attending physician, case of T. L.

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Pancreatic Cysts: Report of Two Cases

RAYMOND M. CARMICHAEL, M.D.

ALTHOUGH cystic conditions of the pancreas are said to occur with relative rarity, the presence of fairly frequent isolated case reports in the literature leads one to believe that they probably occur more often than is the general opinion.

The classification of Robson and Moynihan[1] has been most frequently followed. The following classification, modified from that of Mahorner and Mattson[2], is suggested:

I. Cysts Resulting from Defective Development.
   1. Cysts in infants.
   2. "Polycystic disease of the pancreas" (dysontogenetic).
   3. Lindau's disease.
   4. Dermoid cysts.
   5. Inclusion cysts.

II. Pseudocysts (Cysts having no wall of their own, the wall being formed by peritoneal surfaces in the region of the pancreas).
   1. Traumatic.
   2. Inflammatory.

III. Retention cysts.
   1. Calculi.
   2. Annular scar formation.

IV. Neoplastic cysts.
   1. Cystadenoma.
   2. Cystadenocarcinoma.
   3. Teratomatous cysts.

V. Cysts resulting from parasites.

Nygaard and Walters[3] have suggested the term "dysontogenetic cysts" as being more satisfactory than the descriptive term "polycystic disease of the pancreas." This is the rarest of congenital cysts. Pseudocysts are the most common of all types. Cystadenomata are extremely rare. Lindau[4] described a cystic condition of the pancreas associated with hemorrhagic cysts of the central nervous system and kidneys. This syndrome bears his name.

Judd[5] suggested chronic interstitial pancreatitis due to pressure on the biliary apparatus by contracting connective tissue as one of the most common causative factors; and saw a more or less definite relationship to diseases of the biliary tract. Trauma is by far the most common cause of pseudocysts. Webb-Johnson and Muir[6] suggest two theories of origin; (1) That the cysts are true adenomata; (2) The theory of develomental error: the cysts being derived from "strayed" genital cells; or, are of urogenital origin; or, that they are of enterogenous origin. They report a case in which the presence of muscle fibers in the wall and septa of the cyst indicated a foetal or teratomatous origin.

The diagnosis of a cyst of the pancreas can seldom be made from the symptoms presented. There is probably some disturbance of the pancreatic function but this seldom reaches a point where clinical attention is attracted to this organ. Pain, usually located in the left upper quadrant, is the most common symptom. Symptoms of pressure on adjacent organs frequently occur. The presence of a tumor mass in the upper abdomen most often is the reason for seeking medical aid. These masses usually present themselves in the left upper quadrant near the mid-line, and may be moveable both on pressure and with respiration. They are usually unattached to the abdominal wall. Careful examination of the stool and urine may give no indication of pancreatic disease. The occurrence of jaundice has been reported in cases in which there was pressure on the biliary apparatus. A careful X-ray examination with barium is of extreme importance in cases in which pancreatic cyst is suspected. The effects of pressure upon the stomach and colon with consequent deformity have been helpful in the diagnosis of many cases.

The cyst fluid should be examined for the presence of pancreatic ferments. However, it must be remembered that the presence of pancreatic ferments may not always indicate a pancreatic origin. According to Boyd[7] these ferments may be present in the fluid of any cyst into which there has been hemorrhage.

Incision and drainage of the cyst is the most common method of treatment. Marsupialization of the cyst, by suture of the cyst wall to the parietal peritoneum, has been performed frequently. Complete extirpation of a pancreatic cyst was first performed by Bozeman[8] in 1882 and has been repeated since. Extirpation of the cyst and partial resection of the pancreas has been successfully performed.[3] Extirpation is the method of choice whenever possible since the

The Author

● Dr. Carmichael, Cincinnati, Ohio, is a graduate of the University of Cincinnati, College of Medicine, 1935; resident in surgery, Good Samaritan Hospital; clinician, outpatient department, Surgical Department, University of Cincinnati and Cincinnati General Hospital.

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From the Cincinnati General Hospital and the Good Samaritan Hospital, Cincinnati, Ohio.

recurrence or refilling of cysts subjected to drainage or marsupialization is known to occur with relative frequency. The pancreatic juice itself is not irritating to the skin except in those cases in which the ferments are activated by duodenal secretions. In such cases it is necessary to protect the skin from digestion. The fistulous tracts may continue to drain for a long period of time. Hamilton[9] has suggested the use of radium in the fistulous tract in an attempt to reduce the length of the period of drainage.

CASE REPORTS

Case I. F. G., a white female student nurse aged 27, was admitted to the medical service of the Cincinnati General Hospital June 22, 1931, complaining of occasional attacks of pain in the left upper quadrant of the abdomen of two years duration. These attacks were accompanied by nausea and vomiting. The pain was dull and radiated to the back. It was not related to respiration. History of symptoms revealed occasional shortness of breath, not related to effort; a sense of fullness after small meals, excessive gas formation and distention, chronic constipation; occasional nocturia. Ten years previous there had been an attack of acute nephritis. In 1930 there had been an attack of rheumatism involving the right knee and third finger of the left hand. She underwent a tonsillectomy in May, 1930, and a right oophorectomy, Gilliam suspension of the uterus, and appendectomy in November, 1930. No other points in the history are remarkable.

Examination of the abdomen revealed a mass three finger breadths below the left costal margin. This moved with respiration and was not particularly painful. Temperature 98. Pulse 80. Respirations 20. Rbc. 3,500,000. Hb. 69 per cent. Wbc. 6,000, lymphocytes 27 per cent, large mononuclears and transitionals 7 per cent, polymorphonuclears 65 per cent, eosinophiles 0 per cent, basophiles 1 per cent. Platelets normal, fragility of red corpuscles normal. Van den Bergh negative. Icteric index 7. Urinalysis revealed a trace of albumin. X-ray examination of the abdomen was not done. It was felt that the mass in the upper quadrant was not an enlarged spleen, and an exploratory operation was requested.

An exploratory laparotomy was performed by Dr. Geo. Heuer on June 29, 1931, under ether anesthesia. On opening the abdomen a cystic mass about the size of a grapefruit was seen protruding up between the lower aspect of the stomach and the transverse colon. The wall of the cyst apparently contained pancreatic tissue. The vascularity of the cyst wall made any attempt at excision impossible on account of repeated bleeding. The cyst was accidentally ruptured and was seen to contain six to eight ounces of cloudy, syrup-like fluid in which were seen several small white flakes. Since excision was impossible the cyst was marsupialized by suturing the cyst wall to the peritoneum and anterior rectus fascia. The abdomen was closed in layers with chromic cat gut, silk-worm gut stay sutures and black silk in the skin. Two cigarette drains were inserted into the cyst. The patient stood the procedure very well.

Examination of the cyst fluid showed the presence of active pancreatic ferments.

The patient made an uneventful recovery and was discharged four weeks after operation at which time drainage from the cyst had ceased and the sinus was healed.

On May 10, 1933, the patient was admitted to the surgical service of the Cincinnati General Hospital complaining of generalized cramp-like pain of 12 hours duration. This was especially severe below the umbilicus and the onset was followed by nausea and vomiting. Severe backache which began with the abdominal pain was also present.

Examination showed an acutely ill patient moaning and doubled up with pain. The lower abdomen was distended, tender and rigid. No definite masses could be palpated. Peristalsis was normal, no patterns were seen. Temperature 98. Pulse 98. Respirations 20. Wbc. 10,000. Urinalysis showed albumin four plus. X-ray



Fig. 1. (Case 1). Roentgenogram of the abdomen after barium, showing the large circular defect in the stomach produced by the recurrent pancreatic cyst.

examination of the abdomen showed only a large amount of gas in the large intestine. A diagnosis of intestinal obstruction was made and since the patient showed no improvement with continuous gastric lavage, it was decided to operate.

On May 12, Dr. M. M. Zinninger made an exploratory right lower rectus incision under local and gas-ether anesthesia. A considerable quantity of blood tinged turbid free fluid was found in the abdomen. There was a mass of coiled and twisted gangrenous bowel in the right lower quadrant. Adhesions were freed and the bowel at the upper and lower limits of the gangrenous area divided; the mesentery was divided and the gangrenous bowel removed. The two stumps of bowel were brought out through the lower end of the incision; iodoform packing was tucked about the loops of bowel and a rubber tube inserted into each loop, held in place by a purse-string suture. The condition of the patient was only fair. The incision was closed by through and through silver wire sutures. The patient recovered rapidly. Five days later under gas-oxygen anesthesia the silver wires were loosened, the stumps of bowel were pulled out, the ends amputated and closed, and an anti-peristaltic side-to-side anastomosis

was performed without exposing the peritoneal cavity. The bowel was then dropped into the peritoneal cavity and the wires re-twisted. The patient stood this procedure very well and was discharged five weeks later after an uneventful recovery.

On February 28, 1937, the patient was admitted to the Good Samaritan Hospital complaining of a tumor in the abdomen of six weeks duration and vague epigastric pain. Examination of the abdomen revealed a small firm mass in the epigastrium which moved with respiration. There was no tenderness or rigidity. X-ray examination of the stomach with barium showed the stomach in normal position with a circular defect in the greater curvature having a diameter of 7 to 8 cms. (Fig. 1) It was felt that this deformity was due to pressure from an extrinsic mass. A diagnosis of recurrent pancreatic cyst was made.

On March 1, under local and gas-oxygen-ether anesthesia, operation was performed by Dr. M. M. Zinninger. The old left rectus incision was excised and when the rectus muscle was penetrated a bluish cystic mass adherent to the rectus sheath was found in the upper angle of the incision. The peritoneum was not definitely identified. The cyst was found to be multilocular and for this reason excision was decided upon. Pancreatic tissue was freed from the cyst as closely as possible, clamped, divided and tied with cat gut. In this fashion the cyst was removed. Two cigarette drains were placed down to the pancreas and the fascia closed with interrupted chromic cat gut, the skin with interrupted black silk. The patient made an uneventful recovery and was discharged two weeks later with a well healed wound. Microscopic examination of the cyst wall showed chronic inflammatory changes in soft tissue with multiple cyst formation. The cyst fluid was not examined. The patient has remained well to the present time.

Case II. Mrs. M. B., a white housewife aged 29, was admitted to the Good Samaritan Hospital June 4, 1936, complaining of dull pain in the lower right quadrant of the abdomen of 12 hours duration. Onset of pain was sudden and was followed by nausea and vomiting. The pain gradually increased and became more constant, radiating to the back. There had been no previous attacks. The patient stated that since childhood she had attempted to wear a girdle to correct epigastric fullness but was not able to do this because of discomfort. The remainder of the history is not remarkable. Examination of the abdomen revealed fullness of the lower abdomen resembling a five months pregnancy. There was marked tenderness and muscle spasm over the entire abdomen, especially in the left lower quadrant. No definite masses could be palpated. Vaginal and rectal examinations gave normal findings. The remainder of the examination was negative. Temperature 99°. Pulse 88. Respirations 20. Wbc. 14,100, polymorphonuclears 93 per cent, small lymphocytes 6 per cent, large mononuclears 1 per cent, stabs 25 per cent, shift 26 per cent. Urinalysis showed acetone three plus and a faint trace of albumin. X-ray examination of the abdomen revealed a soft mass in the left upper quadrant. A diagnosis of pancreatic cyst with beginning chemical peritonitis was made and the patient was prepared for operation.

Under gas-oxygen-ether anesthesia the abdomen was opened through a mid-right rectus incision by Dr. L. B. Johnston. The entire left half of the abdomen was filled by a loose, partially filled unilocular sac of fluid which extended from behind the stomach down into the pelvis. The cyst wall was bluish black in color and was considerably thinned out in some places. It was filled with almost 700 ccs. of brownish thin fluid which was aspirated. The cyst was then excised close to the pancreas. Bleeding vessels were tied with cat gut. Two cigarette drains, one small rubber tube and a rubber tissue drain were inserted through the gastrocolic omentum down to the pancreas and brought out through a stab wound. The abdomen was closed in layers by chromic cat gut and silk-worm gut stay sutures. Black silk was used in the skin. The patient stood the operation very well.

Microscopic examination of the specimen showed pancreatic tissue which had undergone chronic inflammatory and atrophic changes with acute and chronic inflammatory changes in the wall of the cyst.

The patient made an uneventful recovery and was discharged two weeks later at which time there was a very small amount of drainage from the wound. This was completely closed two weeks later. The patient was readmitted in December, 1937, and was delivered of a normal full-term male infant. The pregnancy had been uneventful and the patient made a satisfactory recovery.

SUMMARY

The subject of pancreatic cysts is briefly reviewed. A classification is suggested.

A case of recurrent polycystic disease of the pancreas is presented.

A case of a unilocular pancreatic cyst, probably present from childhood, is presented.

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GOOD SAMARITAN HOSPITAL.

While trying to deliver a large hypernephroma, its attachment suddenly gave way, and the large kidney tumor rolled off onto the floor and, after several bounces, came to a halt in the supply room. Doctor Ballenger says, "We dodged, and expected to see a fountain of blood, but we have yet to see the blood. There was an uneventful recovery."—Edgar G. Ballenger, Atlanta.

Newer Treatment Methods In Schizophrenia

E. A. BABER, M.D.

DURING the year 1937, 354 men and 356 women, a total of exactly 700, were admitted for the first time to the eight state mental hospitals of Ohio. With few exceptions, these 700 were in the flowering of their youth, preparing to take up their part in the responsibilities of their communities. In addition, there were 152 similar individuals received, who had previously been committed to institutions. These 852 patients, for whom the State has obligated itself to provide care and treatment, were all suffering from the most common, and at the same time, the most baffling and mysterious affliction which psychiatry is called upon to alleviate—schizophrenia, or dementia praecox.

Adolph Meyer says—the evolution of the present concept of this disorder is the history of psychiatry as a whole[1]. From ancient times, man has noted peculiar mannerisms, hallucinations and statue-like stupors as characterizing mental diseases. Willis, in 1674, pointed out the fact that a notable number of young people became demented. While Morel of Paris, in 1850, first used the term dementia praecox, Kahlbaum, in 1863, established the concept of catatonia as a distinct symptom complex and Hecker, ten years later wrote of a group of patients under the name of hebephrenia; it was not until 1896 that Kraepelin of Munich coordinated these and other groups as a disturbance of the mind occurring in youth and ending in dementia—under the name of "dementia praecox". As the term "dementia" had long been associated with all insanity in the public and general medical mind, fatalistically suggesting the findings in dementia paralytica (or paresis), and senile dementia, this adoption of "dementia praecox" as a disease entity led to an attitude of hopelessness in prognosis and an inertia in treatment.

Bleuler of Zurich, from an exhaustive clinical experience, noted the hallucinations, delusions, distorted emotional expressions, disorders of attention, regressions, stereotyped motions, lessened capacity for work, and the dilapidations of thought which occurred in these patients. He also noted that the affliction did not begin in all of these patients in their adolescence, and that there were exceptions to the final dementia; therefore, he considered that the poor prognosis was not justified. To present a more optimistic outlook, Bleuler formulated the theory of a splitting of the personality as the basic factor of the entire system complex, and in 1911, coined the term "schizophrenia" (split-personality), the day-dreaming psychosis—describing the outstanding symptom by which the schizophrenic is recognized—the dissociation of the individual. Bleuler widely applied the term "schizo-phrenia" to cases in which hallucinations and delusions are prominent symptoms, and which do not belong to the well recognized organic or toxic psychoses on the one hand, or the manic-depressive group on the other. It is this concept which is the most popular one today and is replacing both the terminology and viewpoint of Kraepelin. (These are the paraphrenias of Freud.) Bleuler has thus "substituted a dynamic, for a static orientation for a group of mental diseases, easily the most important in the whole range of psychiatry[2]."

The Author

● Dr. Baber, Cincinnati, Ohio, is a graduate of University of Louisville, School of Medicine, 1909; member American Psychiatric Association, American Association for the Advancement of Science; superintendent Longview State Hospital, Cincinnati; assistant professor of psychiatry, University of Cincinnati College of Medicine.

CLASSIFICATION

In the consideration of individuals of the schizophrenic reaction type, there is no evidence of their having a unitary disorder, but even in the absence of a closely defined group of symptoms, or of specific tests, it is useful to refer to a "schizophrenic group," and a patient properly designated to this classification gives us some working knowledge about him. It helps us to arrange a plan of action whereby help may perhaps be extended[3].

In placing a patient in the schizophrenic group, it is usual, at least for statistical purposes, to designate one of the four divisions of the complex, as prepared by the Statistical Manual of the American Psychiatric Association, and the National Committee for Mental Hygiene.

1. The most common of these four types is hebephrenia, comprising 52 per cent of the schizophrenics. It literally means "mental disease of adolescence".

2. The paranoid type is the second most frequently encountered, being one out of every four schizophrenics, or 25 per cent. This group is a "persecution symptom-complex".

3. The catatonic group comprises 10 per cent

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of the schizophrenics. This is the "state of tension or rigidity".

4. In the simple type of schizophrenia are to be classified those individuals showing a decrease in interest and understanding, especially in school work, a definite intellectual dulling, but no strikingly peculiar behavior or delusions, as found in the other groups.

These four types are only relative distinctions, and overlapping is so common that in fully 50 per cent of the schizophrenics admitted, difficulty is experienced in placing them into the appropriate groups. There is a tendency in some clinics to create a complicated subgrouping of these four types, which should be avoided until more knowledge is forthcoming as to the nature, cause and pathology of schizophrenia, all of which must still be considered as a riddle. For the solution of this greatest enigma of psychiatry, there is now going forward a concerted research movement directed in some 20 centers of this country, by the National Committee for Mental Hygiene.

PREVENTION

The great amount of effort in recent years applied to studies of child psychopathology, through child guidance clinics, constructive assistance given children showing serious behavior difficulties and the application of mental hygiene to schools, endeavors to seek out the tendencies that predispose to the schizophrenic reaction type and "offer prophylactic opportunities during childhood that may be advantageous in the attempt to prevent those ingrowing personalities who are in danger of this chronic maladjustment[5]".

While hopeful regard may be given a program to lessen future incidence of schizophrenia, it is the newly admitted patients who are the immediate responsibility of those in the state hospital service. It is their duty to do their utmost to keep them from joining those 7,476 residuals of schizophrenia who were in the state hospitals of Ohio on the 31st day of last December, comprising 41 per cent of all the 18,238 patients then in residence.

This disorder does not tend to run a self-limiting course, but when once established, it is apt to persist during the lifetime of the patient[6]. However, those in institutional practice have all had the pleasure of seeing unresponsive patients, of the various schizophrenic reaction types, for some unknown reason, overcome their personality conflicts and return to normal interests. More often, this happy result is obtained following a definite treatment program, involving socialization of the patient, getting him interested in other individuals, re-education to counteract bad personality habits, planned occupational and recreational therapy with the goal of teaching the patient to obtain satisfaction from an assignment possible for him to complete, correction of physical abnormalities and dietetic errors; also, hydrotherapy with regulated rest and relaxation. A visit to a modern mental hospital will show a marked decrease in the number of stuporous patients standing or sitting about the wards with odd posturing and stereotypies, which is proof that this treatment program is securing favorable results. Moreover, the institutional records will show many more patients released on the status of a trial visit, with ultimate discharge, than was thought possible two decades ago. There is a tendency in some institutions, to place emphasis on early removal of the patient, to force him to a stimulating outside adjustment as soon as he begins to show appreciable improvement, thus preventing him from becoming accustomed to a protected hospital environment.

The unfortunate part of this brighter picture is that the majority of these patients who have inspired hope that a successful treatment was at hand, have shown only a social recovery, which may be sufficient for them to continue to live apart from an institution, and even to have a limited usefulness, in spite of the continuance of hallucinations and delusions. A few patients do recover, many cases improve, but a far greater number do not, and cannot take up the burdens of normal life. The readmission of 152 schizophrenic patients to our hospitals last year, who had been discharged as improved or recovered, shows the instability which must be considered in giving value to this usual therapeutic approach, which, handicapped by limited personnel and cruel overcrowding, has nevertheless made a commendable effort.

TREATMENT

A cure that will really be effective in releasing mankind from the scourge of schizophrenia, will be a great scientific achievement. Much effort has been put forward on the part of well trained workers, and others not so trained, to present to the waiting world a means whereby this malady may be conquered. "We have heard of, and tried, many combinations of drugs, typhoid inoculations, injections, extracts from endocrine glands, liver and choroid plexus, one recent method being the use of sodium amytal to produce the 'dauerschlaf' or continuous twilight sleep which followed the European use of somniform ".

The results obtained by these methods have been generally disappointing, which tends to bear out the belief that the deterioration developed in so many of these cases was progressive, destructive and irreversible, so that there is justification for those who have experienced these disappointments to be skeptical when a new "cure" is heralded.

Dr. Manfred Sakel of Vienna found that, in

LONGVIEW STATE HOSPITAL
Medical Department

HYPOGLYCEMIA RECORD

Treatment No. 58 Date 5-6-38

Name L. S. County Hamilton Units Insulin 80 Time 6:10

	6 :15 :30 :45	7 :15 :30 :45	8 :15 :30 :45	9 :15 :30 :45	10 :15 :30 :45	11 :15 :30 :45	12 :15 :30 :45
Temperature	98			97 [2]	96 [2]		
Pulse: rate	80	84	88	96	96		
rhythm							
volume							
Respiration	20	20	20	20	20		
Blood Pressure							
Stage I							
Restlessness							
Sleepiness	V V	V V V V	V				
Hunger							
Regression							
Sweating		V V	V				
Stage II							
Sweating			V V V	V V V V	V		
Twitching			V V V				
Sucking movem's			V				
Exophthalmos			V V				
"Grasping"							
Stupor			V				
Stage III							
Coma			V V	V V V V	V		
Pos. Babinski			V V	V V V V	V		
Rigidity				V V V	V		
Athetosis			V V	V			
Salivation			V V	V V V V	V		
Pilomotor React.				V V V			
Tonic Spasm				V V V	V		
Stridor				V V V	V		
Epileptiform Conv.							
Stage IV							
Collapse of Nares							
Fixed Const. Pupil							
Loss of Reflexes:							
Patellar							
Biceps							
Babinski							
Corneal							
Chevne-Stokes Resp.							
Pupil							
Pallor							
Flushing				V V V V			
Cyanosis							
Pleasant							
Resistive							
Noisy							

Regular diet at 11:30 Appetite good.
To Ward at 12:30

Termination Time 10:15 Method Nasal Gavage By Whom A. W.

Fig. I.

using unusual amounts of insulin with morphine addicts suffering from withdrawal symptoms, that accidental shocks so produced, resulted in an amazing change in personality. He utilized this shock in individuals presenting symptoms incident to schizophrenia and was surprised to see the return to a previous clear mentality. American physicians, seeing the results in Vienna, were responsible for an invitation extended, in 1936, by the New York State Commissioner of Mental Hygiene, to Dr. Sakel, to demonstrate the technique to the New York state hospitals. It was through the courtesy of the Harlem Valley State Hospital that widespread instruction in the most effective method of using the new treatment was given to the hospitals and clinics of this country.

In March, 1937, arrangements were made

at Longview Hospital in Cincinnati to place four schizophrenic patients under the hypoglycemia treatment, in accordance with the methods advocated by Dr. Sakel. After adequate preliminary examination the patient is given increasing doses of insulin while fasting in the morning. The initial dose is usually 15 or 20 units, and this is increased by 10 to 20 units daily, until the patient goes into coma. The amount of insulin necessary to accomplish this is considered the shock dose. The coma is terminated by the administration of glucose, by nasal tube. The coma or shock is repeated six days a week for a varying period of time. The shock is divided into four stages. The aim of the treatment is to maintain a smooth stage III shock (Fig. 1) for one to three or four hours, according to the patient's response to treatment. The control chart used at Longview Hospital clearly indicates the course of the treatment. It shows the number of shocks, the dosage used, the symptoms arranged as to time of appearance; it classifies these symptoms according to the stage in which they appear, and indicates the duration of each stage. The physician, glancing around the room, not only can have every patient under observation, but by the recording on the chart, can immediately note the depth to which the patient has fallen, the speed which the coma develops and the length of time the patient has been unconscious. He is thus free to observe the appearance of any unusual symptoms, such as convulsions, or threatened respiratory or vasomotor failure.

THE RESULTS

It is not believed wise to give less than 40 shock treatments to any patient even though the response by improvement in the mental condition occurs much sooner. In patients, who seem to improve early in the treatment it is thought best to give at least two weeks' treatment after the mental condition seems normal. Patients often do not improve until after 50 or 60 shock treatments have been given. This is true chiefly in the older cases, but occasionally also in the earlier ones. In certain cases who seem to become more mute and resistive under influence of the insulin, metrazol has been given two or three times weekly after the day's insulin shock has been terminated, with decided benefit to the patient and to the statistics of improvement. Epileptiform seizures are not considered particularly dangerous. They seem to occur in about 4 per cent of all insulin shocks, and in only about half of the patients treated. Only occasionally does distinct benefit seem to occur following hypoglycemic epileptiform seizures.

After the patient has satisfactorily completed the course of insulin therapy, he is observed for two to three weeks before permitted to go home.

Various refinements of technique have protected the patient, and simplified the treatment, so that it is found that special non-confining restraint prevents the patient from falling from bed. Irrigation cans for holding the glucose, avoiding the tiresome job of pouring it through a small funnel, have been adopted. All materials for emergency treatment of patients are kept within easy reach, on a long center table, so that we are now able to treat 25 patients at once, with only one physician and three nurses in attendance. We have had no fatalities, or serious complications at Longview, in over 4,400 of the insulin shocks. The average number of shocks in 55 patients who have completed the treatments is 61.55 each, the greatest number given a patient being 100. The remarkable results that we see in the daily improvement of patients is most encouraging. Of the 17 patients who manifested the first symptoms of schizophrenia less than one year prior to the beginning of treatment, all have now been permitted to leave the institution on the status of a long trial visit; 14 of these patients have shown a return of objective thinking, and acting, and have to all appearances, completely recovered. The remaining three have the present status of a social recovery.

Of the total number of 55 patients whose treatment has been completed, only one has failed to show any improvement; and 39, or 70 per cent have been able to leave the institution. Of 25 patients, ill more than two years, 15 were in this fortunate group, five of whom had been schizophrenic for more than five years. It is, therefore, understandable why such enthusiasm for the hypoglycemia shock treatment is manifested, not only by the entire staff, the patients and the relatives, but by all other individuals acquainted with the work of the hospital. This enthusiasm is particularly evident in the patients who have recovered, and who frequently visit the clinic and the hospital to express their appreciation.

CONVULSIVE THERAPY

The convulsions occasionally occurring during insulin shock and from which the patients seem to suffer no serious consequences, prepared us for the next development in the treatment of schizophrenia, namely the convulsive therapy. Meduna of Budapest, in 1934, had reported numerous cures in schizophrenia following the induction of convulsions by the use of camphor and metrazol. In August of last year, the method advocated by Emerick Friedman of Greenwich, Connecticut, was begun. The camphor was injected dissolved in oil, and when sufficient quantities of it were given intramuscularly, the patients were observed to have one, two, or more convulsions. Metrazol, which was injected intravenously, with a very fast special technique, resulted in single convulsions within ten to twenty

seconds after injection, and therefore was much more amenable to control. We have used both these methods alone and in combinations, in 70 patients. In our experience, the metrazol has only a limited use when employed alone. We have had several depressed and stuporous, as well as a few noisy and over-active patients, who responded favorably to it, but for the most part, we have found that the use of metrazol in combination with insulin is of greater value.

CARE NECESSARY

At this point, a warning must be sounded, that the hypoglycemia therapy should be carried out only in well prepared and organized clinics, by those who have had a certain amount of experience with the method by observation and actual practice. It is no longer necessary that insulin be given by relatively untrained personnel who must feel their way through the treatment, since adequate training is so easily available in many places.

To many physicians, these empiric treatments may appear barbaric, irrational, and against the therapeutic principles which guide the medical profession. Research, however, into the nature of the treatment and into the results that are obtained, is showing that there is no great discrepancy between these apparently unrelated treatments and the conception of the schizophrenic syndrome which is now being developed. As a matter of fact, it is in those hospitals where the new treatments are given that the greatest strides are being made in the understanding, not only of schizophrenia, but many fundamental mechanisms of the physical bases of thinking, behavior, and the emotions. Even before the development of these treatments, Dr. R. G. Hoskins of the Wooster State Hospital pointed out that aviators, mountain climbers, and individuals placed in low oxygen pressure chambers developed schizophrenia-like symptoms. Such persons showed apathy, depression, silly laughter, poor judgment, obliviousness to danger, uncontrolled emotional outbursts, and other similar symptoms, indicating a loss of integration. Studies made of schizophrenic patients reveal that on the whole, they have a depressed basal metabolism rate, lessened reaction to carbon dioxide, diminishing blood speed and a defect in tissue respiration. Hoskins concluded that in schizophrenia, there was a defect in brain oxygen metabolism.

Studies made of patients during insulin shock likewise reveal that in coma there was a great depression in the utilization of oxygen. At the recent Federation of Biologists meeting in Baltimore, Dr. Ralph Gerard of the University of Chicago, in discussing the recent studies of anoxemia of the brain, said, "One might rationalize the various current therapies of schizophrenia in terms of increased brain respiration, either induced directly or on a rebound." Naturally, everyone who is engaged in the use of these new therapies, and who has made any attempt to understand what they are accomplishing is stimulated to investigative work.

What could be the relationship of the oxygen utilization of the brain to the bizarre symptomatology of schizophrenia?

What effect does the brain oxygen metabolism have on the autonomic nervous system which appears to be so much involved during these treatments? Does the fault lie in the cortex, the mid-brain, or the peripheral mechanisms?

The recent studies of Bruetsch and Bauer of Indianapolis, exhibiting the schizophrenia-like symptoms produced in patients, who were shown on postmortem to have suffered from damage to the cortex from rheumatic diseases, seem very closely related to this problem. The studies made by our clinical director, Dr. Douglas Goldman, demonstrate that many of the patients experiencing epileptic seizures during insulin shock appear to have localization of the spasms, as though suffering from organic destruction of the cortex. The predominance of the autonomic symptoms manifested both during insulin shock and metrazol convulsions has also been very stimulating to research. The vegetative changes in schizophrenics have long been noted; the cold blue hands, the dilated pupils, the inactive intestinal tract all emphasized some involvement of this mechanism long before the advent of the new treatment.

Several years ago, Dr. Esther Tietz and I tried to utilize ergotamine tartrate to antagonize the sympathetic nervous system in psychotic patients, and were interested to find that in a certain number of cases many aggressive symptoms disappeared. Further reports from other laboratories on the role played by acetycholine, benzedrine and other autonomic drugs pointed to the importance of these substances in the control of psychic phenomena.

ELECTRO-ENCEPHALOGRAPHY

We have been fortunate at Longview to be able to carry on some cooperative research with Dr. Gerard of Chicago, well known for his studies on the brain waves. By the use of various oxidative catalysts, we have been able to show that the autonomic changes during insulin shock may also be induced by the use of these agents, and that a number of similar effects on the psychic picture are able to be demonstrated.

The application of the electro-encephalograph to the study of the rate of oxidation, has added materially to the understanding of this problem. Dr. Davis of Boston demonstrated the change in the brain wave present in sleep, and other

investigators have shown the alterations in the brain wave present in schizophrenics. Careful studies of these electrical potentials at Wooster State Hospital and Chicago have encouraged us at Longview to take a great interest in this problem, and we plan within a very short time to add this technique to the studies already under way there.

An inspection of the accompanying table (Fig. II) demonstrates the value of early treatment, after the beginning of definite symptoms of schizophrenia. How many of the 700 boys and girls who are coming into our Ohio state hospitals this year will have waited too long for treatment to be most effective? Will the similar regiment of youth which will cross our institutional thresholds next year have profited by the call for early treatment?

Our experience emphasizes that continued effort must be exerted to provide early therapy for psychotic patients. The educational work must go forward, to the end that there will be no more feeling of disgrace or shame connected with the necessity of having to promptly institutionalize a loved member of the family who has a mental illness, than there would be, were he a victim of tuberculosis or some other serious malady.

Our experiences also emphasize that these newer aspects of psychiatry must be built upon sound medical practice, that we need the cooperation provided by the skill and training of the internist more than ever before. Dr. Foster Kennedy of New York writes, in the preface of Dr. Sakel's new book "The Pharmacological Shock Treatment of Schizophrenia" as follows:

"The scholasticism of our time is being blown away by a new wind and whatever may be the verdict of the next decade in reference to Manfred Sakel's contribution to the treatment of so-called schizophrenia, we shall not again be content to minister to a mind diseased, merely by philosophy and words."

FIG. II—RESULTS OF INSULIN AND METRAZOL THERAPY

I.

Regular Insulin Shock (Sakel Method)

Duration	Result	A	B	C	D	
0 to 1 yr.		14	3	0	0	
1 to 2		4	3	5	0	
2 to 3		0	5	3	1	
3 to 5		4	1	6	0	
over 5		0	5	1	0	
Totals		22	17	15	1	55 patients

II.

Combined Metrazol Results

	A	B	C	D	
0 to 1	1	0	1	1	
1 to 2	1	3	2	0	
2 to 3	0	2	4	1	
3 to 5	1	1	14	5	
over 5	1	1	14	17	
Totals	4	7	35	24	70 patients

The Result A is complete recovery from symptoms
The Result B is a social recovery (can leave the institution)
The Result C is an improvement (continued institutionalization necessary)
The Result D is no improvement.

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House Dust As An Allergen

In 1922, Cooke presented evidence which tended to show that the excitant to asthma and coryza in house dust was not simply a collection of the various allergens found in the home but that the house dust contained in it a specific active principle of its own. This hypothesis became the object of a great deal of research. Cook, Grove, Coca, Van Leeuwen, Cozart, and more recently Milton Cohen and Rackmann have brought forth stimulating researches on this subject. The question involved has by no means been settled but practical students have come to look upon strongly positive skin reactions to house extracts as having significance in management of cases of allergic asthma and vasomotor rhinitis. In many instances, graduated injection of these extracts have brought about a tolerance and relieved the distressing symptoms of the patient.

In all of these cases of house dust sensitivity, it is of the greatest importance to free the patient's own home of its dust and is the most important single step in the management of the case. The inhalation of the smallest trace of this dust is enough to produce violent symptoms. Most allergists are familiar with a new electric sweeper (Rexair) which picks up all the dust with which it comes in contact and deposits it in a can of water within the machine instead of into a porous bag as do most machines. This insures the complete elimination of the free dust of the room in a short time and, of course, brings prompt relief to uncomplicated case of house dust sensitization.

Symptoms and Physical Findings In Peripheral Arterial Disease

LAWRENCE N. ATLAS, M.D.

IN a previous communication[1], we discussed the production of collateral circulation and the relief of vasospasm in peripheral arterial disease. It was demonstrated how the success of treatment designed to effect these ends depends on an arterial tree that has retained some of its flexibility; which emphasizes the importance of early diagnosis.

Many of these patients are mistakenly treated for neuritis, muscular rheumatism, flat feet, varicose veins, bunions, corns, ingrown toe nails, and infection; often with disastrous results. The application of therapeutic procedures, surgical, thermal, or chemical, in the presence of peripheral arterial disease is fraught with considerable risk. A recent survey by Barker[2] showed that one-third of the cases of gangrene complicating thrombo-angiitis obliterans and arteriosclerosis admitted to the Mayo Clinic were directly caused by various forms of ill advised treatment, such as operations for ingrown toe nails, removal of corns and bunions, incision of suspected abscesses, the use of heat producing devices, and the application of strong antiseptics.

In the presence of gangrene or advanced nutritional changes, peripheral arterial disease, if it be the etiological agent, is usually apparent. However, there are many other symptoms and physical signs which, if observed and elicited, will point the way to an earlier diagnosis.

CLASSIFICATION OF DISEASES OF PERIPHERAL ARTERIES

1.—**Occlusive**
- A—Thrombo-Angiitis Obliterans (Buerger's Disease)
- B—Arteriosclerosis Obliterans:
  - (1) Diabetic
  - (2) Senile
- C—Acute Embolism and Thrombosis

2.—Vasospastic
- A—Simple Vasospasm with Hyperhidrosis
- B—Raynaud's Disease
- C—Acrocyanosis
- D—Vasospasm from Spinal Cord Disease:
  - (1) Anterior Poliomyelitis
  - (2) Traumatic Lesions

3.—**Erythromelalgia** (Weir Mitchell's Disease)

4.—**Traumatic Dystrophies**
- A—Vibratory Raynaud's Syndrome
- B—Causalgia
- C—Traumatic Arthritis, Painful Osteoporosis, Sudeck's Atrophy
- D—Anterior Scalene Syndrome (Cervical Rib)
- E—Peripheral Nerve Section

5.—Arteriovenous Fistula
- A—Congenital
- B—Traumatic

6.—Aneurysm

Submitted September 14, 1938.

From the Peripheral Vascular Clinic, Department of Surgery, Cleveland City Hospital, and the School of Medicine, Western Reserve University.

The Author

● Dr. Atlas, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1930; member surgical staff, Cleveland City Hospital, in charge of peripheral vascular clinic; demonstrator, department of anatomy, Western Reserve University School of Medicine.

SYMPTOMS

Pain—Pain on exercise is a common symptom and consists of cramps in the muscles of the calf and foot induced by walking and relieved by rest. This is the well known intermittent claudication and is symptomatic of thrombo-angiitis and arteriosclerosis obliterans. Intermittent claudication may take the form of aching pain in the feet and legs associated with fatigue. These latter complaints are those which may lead to treatment for associated but unrelated conditions as flat feet or varicose veins.

Another type of extremity pain is that appearing during and often preventing sleep. This is known as rest pain. Its presence should always make one suspect occlusive arterial disease.

Constant severe sticking pain in a digit may be a warning of actual or impending gangrene. Should it be erroneously ascribed to the coincidental presence of an ingrown toe-nail with resultant operation, a fulminating gangrene will ensue.

Severe burning or aching pain in the digits induced by exposure to cold or emotional upsets may be encountered and is indicative of vasospasm.

Finally, there is the characteristic easily induced excruciating pain of causalgia, the typical burning pain of erythromelalgia, and the sudden pain of embolism or thrombosis.

Color Changes—Color changes in the skin of the feet or hands may be noticed by the patient. The skin may be a dead white, or bright red, or purple, or blue.

A complaint practically pathognomonic of Ray-

naud's disease is that of phasic color changes occurring symmetrically in the digits on exposure to cold or during emotional upsets. Pallor starting at the tips of the digits spreads proximally to be followed by cyanosis and then rubor as the attack passes away. In acrocyanosis the same color changes occur except the attack is often unilateral, and the nutritional disturbances of the tissues seen in Raynaud's disease are absent.

Subjective Sensory Changes—Subjective sensations of coldness, numbness, pins and needles, and tingling in the hands and feet may be symptomatic of diminished blood supply. These may be associated with excessive perspiration. They may bear no relation to the environmental temperature, or they may be induced or aggravated by exposure to cold or emotional upsets. They may occur during sleep. A complaint which is symptomatic of the scalenus anticus syndrome is pain and paresthesias in the hand occurring during sleep when the arm is at the side, and relieved by raising the arm over the head. In Raynaud's disease, the fine sense of touch in the finger tips may be lost.

PHYSICAL SIGNS

General—Youth or middle age and peripheral arterial disease are by no means incompatible. Likewise, no race or class seems to be immune.

Absent Peripheral Pulses—Inability to palpate pulsation in the radial, dorsalis pedis, or posterior tibial arteries is presumptive evidence of occlusive peripheral arterial disease. The location of the radial artery at the outer side of the flexor surface of the wrist is familiar to all. The dorsalis pedis is located on the dorsam of the foot just lateral to the tendon of the long extensor muscle of the big toe. It is superficial. The posterior tibial artery can be felt at a point mid way between the heel and the tip of the internal malleolus. It is deeper than the dorsalis pedis, and somewhat firm pressure is often required to feel its pulsation. Sclerotic changes in these arteries can often be detected by palpation.

Color Changes—Pallor, rubor, and cyanosis are the three color changes to be looked for in the skin of the hands and feet, and when found are strong presumptive evidence of peripheral arterial disease.

Pallor is best detected by having the patient elevate the extremity and actively moving the digits. This is known as Samuel's test[3], and when positive is evidence of occlusive arterial disease.

Rubor varies from the bright red of erythromelalgia to the dusky purple of occlusive arterial disease, and appears best with the extremity pendent. There is a type of bright red rubor associated with pain and tenderness which is occasionally encountered in the feet of people suffering from advanced Buerger's or arteriosclerotic disease. The condition has been called erythralgia[4]. It is easily mistaken for cellulitis. The distinguishing point from an acute infection is that the affected parts are cold to the touch and not hot.

Cyanosis that does not disappear on finger pressure is a sign of gangrene. Pallor or cyanosis that disappears on warming the affected part is indicative of vasospasm; conversely, similar changes can be induced in such cases by immersing the diseased extremity in ice water.

Skin Temperature Changes—Gross temperature changes in the skin are easily detected by palpation. The backs of the middle phalanges of the fingers are very sensitive to small differences in temperature and should be used. If a foot or hand is palpably cold after exposure in a warm room, vascular disease should be expected. The same holds true if a level of precipitate temperature change is found proximal to which the skin feels warm and distal to which it is cold. In certain instances, as in congenital arterio-venous fistula, causalgia, and erythromelalgia, the skin temperature may be elevated.

Nutritional Changes — Certain nutritional changes involving the hands and feet and their digits may be present. Among such changes are thin and shiny skin, loss of subcutaneous tissue, loss of hair, sclerodema, hard non-pitting oedema, thick brittle nails, excessive perspiration, and ulcerations which refuse to heal.

Changes in Superficial Veins—Small areas of acute superficial phlebitis or the scars of healed lesions, particularly if multiple, should arouse suspicion of thrombo-angiitis obliterans.

Unusual distension of the superficial venous system when associated with overgrowth of a portion of an extremity and an increased skin temperature may be caused by a congenital arteriovenous fistula. Unlike the acquired traumatic form, a palpable tumor, thrill, and bruit are not present. A simple test described by Horton[5] to confirm the presence of a congenital arteriovenous fistula is to draw a syringe full of blood from one of the distended veins. In the presence of a fistula, the blood will be bright red like arterial blood instead of the dark color of venous blood.

10465 CARNEGIE AVENUE.

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A lumbar puncture properly done is usually painless and harmless. Undone, the patient may develop a growing cord tumor or a scarred type of neurosyphilis.—Fetterman.

Hypometabolism and Hypothyroidism

R. M. WATKINS, M.D.

THIS study is one of the records of patients who registered moderately low readings of the basal metabolism rate. It is undertaken with the view of learning:

1. How large a portion of the group with hypometabolism have it as a result of hypothyroidism?
2. How large a portion of the patients with hypometabolism were underweight?
3. How large a portion of those with hypothyroidism were underweight?
4. The age peaks of patients with hypothyroidism who were overweight as compared to those with the same disease who were underweight.
5. The variations in basal metabolic rates of the overweight group compared to the underweight.

MATERIAL FOR STUDY

For this purpose the clinical and basal metabolic records of 302 patients were used. They were all taken from our personal files and did not include hospital cases. They all represent cases of mild or moderate hypometabolism. None were of the extreme type. There were no cretins and none of genuine myxedema. Basal metabolic readings were done by some one of three experienced technicians using apparatus made by one company. All patients on whom there is complete clinical data were personal ones. The percentage of variation of both overweight and underweight patients was calculated on the basis of their ideal weight. Decisions as to ideal weight and percentage of disproportion were estimated by standard tables.

Table 1 summarizes the group as to age and weight distribution with percentages of over- and underweight.

TABLE 1

All Cases of Hypometabolism

Age Groups	No. in Group	Aver. B.M.R.	No. overweight	Aver. % overweight	No. underweight	Aver. % underweight	Number of normal weight
1–10	2	–10	1	20	0	....	1
11–20	23	–16	12	19	8	7	3
21–30	46	–11	12	15	30	8	4
31–40	83	–12	39	15	40	10	4
41–50	98	–13	64	10	24	8	10
51–60	41	–13	18	15	17	13	6
61–70	9	–17	3	9	5	10	1
Total	302		149		124		29

Submitted November 1, 1938.

The Author

Dr. Watkins, Cleveland, Ohio, is a graduate of Syracuse University College of Medicine, 1920; fellow American College of Physicians; member, American Board of Internal Medicine; chief of medicine at Woman's Hospital, Cleveland.

Table 1 shows, of the 302 patients, 29 or 9.6 per cent were of normal weight; 149 or 49.4 per cent were overweight and, most important of all, 124 or 41 per cent were under their ideal weight. Thus about two out of five of these hypometabolism cases were underweight. Hypometabolism does not necessarily cause obesity.

As is expected, the large majority of these patients were between 21 and 60 years of age when first seen. Further, by far the largest number of overweight people were in the fifth decade of life, whereas the most numerous of the underweight group were in the fourth, although the figures for the third and fifth decades of this group are not at great variance with those of the fourth decade. This variation is not of great moment and is partially balanced by the relative total numbers of patients of these ages.

Because some may be interested in the interrelations between basal metabolic rate, underweight, data from the series have been analyzed and summarized.

RELATIONS BETWEEN OVERWEIGHT AND BASAL METABOLIC RATE

For this study the patients who were 15 per cent and more overweight have been chosen. This limits the series somewhat, saves unnecessary figures, and shows any trends fairly well.

TABLE II

Per cent Overweight	Number of Patients	Average Basal Metabolic Rate
15–19	17	–12.0
20–24	10	–10.8
25–29	8	–18.1
30–34	3	–14.0
35–39	4	–10.7
40 plus	3	–12.0
Total	45	

One may safely state that there is no direct ratio between degree of overweight and the basal metabolic rate, although up to a point of 30 per cent overweight, the rate rises. In the classes in which the weight is more than 30 per cent

above normal, the fairly high basal metabolic rates are not important, because in this series, at least, these extremely heavy patients were victims of pituitary dysfunction.

RELATION BETWEEN UNDERWEIGHT AND BASAL METABOLIC RATE

As will be demonstrated farther on for hypothyroidism, persons with hypometabolism who are thin, are not thin to the degree that overweight people with hypometabolism are fat. Therefore, in tabulating the findings of the underweight in this series, it was thought best to start with those who were 10 per cent or more underweight, instead of the 15 per cent or more figures used for the overweight group. This may give a false impression as to relative numbers; it may seem that there are as many underweight as overweight: this is not so, but to secure enough to draw conclusions, one must include the 10 to 14 per cent underweight group.

TABLE III

Per cent Underweight	Number of Patients	Average Basal Metabolic Rate
10–14	23	–12.0
15–19	11	–11.1
20–24	7	–11.1
25–29	6	–13.8
30 plus	1	–7.0
Total	48	

Obviously, there is no relation between degree of underweight and basal metabolic rate findings. The 30 per cent plus group can be ignored, there being only one person in it.

RELATION BETWEEN BASAL METABOLIC RATE AND WEIGHT

This is somewhat more complicated than the above because some of the patients are obese, some thin and others of normal weight. To limit the tabulations, the basal metabolic readings begin at minus 15 and stop at minus 34. There were few lower than the last figure and they would not aid in any conclusions to be drawn.

TABLE IV

B.M.R. Range	No. of Patients	Number Overweight	Average % Overweight	Number Underweight	Average % Underweight	No. of Normal Weight
–15–19	61	35	11.7	21	9.3	5
–20–24	23	11	9.0	11	10.6	1
–25–29	11	7	11.9	3	10.6	1
–30–34	3	2	7.5	....	.....	1
Totals	98	55		35		8

As the basal metabolic rates lower, the numbers of patients in both the overweight and underweight classes diminish about in proportion. There are no essential variations in the percentages of over- and underweight. However, let it be noted that of the total of 98 cases, 35 or more than one-third, are underweight. Hypometabolism is frequently accompanied by thinness.

CAUSES OF HYPOMETABOLISM

Under this heading we shall try to break down the 302 cases to find out why they were in the hypometabolic state. For various reasons such as lack of complete clinical data and the failure of patients to report for follow up examination, the final diagnosis of 67 cases is not reported. In the remaining 235 cases the clinical diagnosis include scattered examples of neurocirculatory asthenia, chronic nephritis, syphilis, the allergic state, inflammation of the pelvic adnexa, dental sepsis, arteriosclerosis, chronic otitis media, chronic prostatitis, grand mal, to the number of 17. The more important group remaining was divided into the following:

TABLE V

Disease	Number	Per cent
Scattered diagnoses (see above)	17	7.1
Thyroidectomy (post-operative)	7	3.0
Arthritis of some type	9	3.9
Pituitary dysfunction	13	5.6
"Fatigue syndrome"	33	14.0
Hypothyroidism	156	66.4
Total number with definite diagnosis	235	100.0

Again as one might expect, hypothyroidism is responsible for the majority of cases of hypometabolism. However, one must not overlook the fact that more than one-third of these cases were not the result of hypothyroidism. The discovery of a low basal metabolic rate in a patient means definitely that his disease should be analyzed carefully to determine its nature. It is not by any means always hypothyroidism. In fact there are at times clear contraindications to the use of thyroid extract in cases of hypometabolism.

HYPOTHYROIDISM AND WEIGHT VARIATION

Special attention was directed to the variations from the normal of the weight of the patients with hypothyroidism because these people may be obese or thin, or normal in weight and still have the disease. The diagnosis was based on the standard criteria, including the response to thyroid therapy, which was satisfactory in all instances.

The weight variations were:

TABLE VI

	Number of Patients	Per cent of Total
Normal Weight	13	8.4
Underweight	41	26.3
Overweight	102	65.3
Total	156	100.0

The above is evidence that underweight and hypothyroidism may co-exist. More than one fourth of all the group were underweight and, in fact, only about two-thirds were obese. Certainly obesity is common in hypothyroidism but thinness is not unusual. Further, with thyroid administration, the fat usually lose and the thin usually gain weight.

HYPOTHYROIDISM AND OVERWEIGHT

Table VII summarizes various facts regarding the age, sex and weight distribution of the overweight group with hypothyroidism.

TABLE VII

Age Group	Number Female	Number Male	Total	Per cent of Total	Aver. Percent of Overweight	Average B.M.R.
11–20	9	2	11	10.8	21.4	–17.6
21–30	6	2	8	7.9	13.8	–12.7
31–40	24	3	27	26.4	14.0	–15.2
41–50	37	7	44	43.1	11.2	–14.7
51–60	9	7	10	9.8	13.6	–15.0
61–70	1	1	2	2.0	7.5	–27.0
Total	86	16	102	100.0		

The usual predominance of female over male patients, 86 to 16, is present. The average per cent of overweight and average basal metabolic rate readings are of note because of consistency. The second, third and seventh decades are represented by too few patients to draw reliable conclusions from them but the figures of overweight and metabolic rate readings from 31 to 60 years show remarkably little variation.

The patients in the overweight hypothyroid group, taken all together, average 13.4 per cent overweight.

It may be of interest to note here that of the total of 235 patients with hypometabolism, those with the extremes of obesity, some of them 40 or 50 per cent overweight, were cases of pituitary dysfunction or a combination of that and hypothyroidism.

Thus one may state as a general rule that the person with mild or moderate hypothyroidism is usually overweight, but only moderately so.

A fact of interest is that 69.5 per cent of the patients were between the ages of 31 and 50 years.

HYPOTHROIDISM AND UNDERWEIGHT

This interesting group is analyzed as was the overweight type because of the special interest in the underweight patient with hypothyroidism. There were 41 cases of this type.

TABLE VIII

Age Group	Number Female	Number Male	Total	Per cent of Total	Aver. per cent of underweight	Average B.M.R.
11–20	4	0	4	9.7	8.2	–18.0
21–30	13	1	14	34.1	9.8	–12.2
31–40	12	1	13	31.8	5.7	–12.4
41–50	4	2	6	14.7	7.3	–14.0
51–60	2	2	4	9.7	8.0	–19.0
Total	35	6	41	100.0		

As in the overweight type, the females predominate here. There is some variation in per cent of underweight of the decades, but the average basal metabolism rate is reasonably constant except in the second and sixth decades which are represented by only a few patients.

As a whole, the patients in this underweight group averaged 7.8 per cent under normal weight; they are definitely less underweight than those of the obese type are overweight.

To repeat, one must not forget that the hypothyroid patient may be thin. One fourth of the patients in this series were below ideal weight.

In contrast with the findings of the overweight group, 65.9 per cent of those underweight were between 21 and 40 years of age, some 10 years younger than those of the former group.

HYPOTHYROIDISM AND NORMAL WEIGHT

It may be of interest to record the data of the normal weight group. There are too few in it to warrant many details.

TABLE IX

Age Groups	Number of Patients	Average B.M.R.
11–20	1	–12.0
21–30	3	–13.3
31–40	1	–14.0
41–50	6	–10.3
51–60	2	–11.5
Total	13	

Of the 13, there were 11 females and 2 males. There is nothing of note in the basal metabolic readings.

LITERATURE

It may not be amiss to report briefly the contributions of recent literature to these subjects.

Low basal metabolism rates may be found in various conditions not entirely of thyroid origin according to McKinley[1], who also reports basal readings of less than minus 10 in over a quarter of a group of college students, all of whom had normal capacity for work.

Schick and Topper[2] correlate the bradycardia of post-febrile infections, hepatic disease with jaundice, brain tumor and patients treated with

phenyl-ethyl-hydantoin with low basal metabolic readings.

Undernutrition, pituitary tumor, and some menstrual disturbances are accompanied by low basal rates, as reported by Davis[3].

Carey and Brumfield[4] add menopause, thyroid disease including adenomatous and colloid goiter, obesity, migraine, psychoneurosis, arthritis and others, to the above list.

The "fatigue syndrome" mentioned above is reported by Thurman and Thompson[5] among other conditions, as characterized by low readings.

Berkman[6] adds to the above sterility, hypersecretory rhinitis, anorexia nervosa and hypopituitarism.

Some unusual diseases such as chromophobe adenoma of the pituitary, Fröhlich's syndrome, pituitary cachexia, castration in males as well as females, Addison's disease and lipoid nephrosis are emphasized by McCullagh[7] as being accompanied by low basal metabolic rates.

Hypothyroidism is discussed in several papers in the recent literature. With reference to the present paper are remarks by Gardiner[8], Marr[9], Lathrope[10], Falk[11], and Marsh[12] who note that some patients with hypothyroidism are thin. Hartsock[13] and Wahl[14] mention the fact that low basal metabolic rates do not necessarily denote hypothyroidism but may be the result of some other bodily disease as we have found in this series.

SUMMARY

The important points of this study may be noted as follows:

1. Of the 302 patients with hypometabolism, 41 per cent were underweight.

2. In the overweight group of hypometabolism cases there is a tendency for the basal metabolic rate to lower with increase in degree of overweight up to about 30 per cent. The patients more than 30 per cent overweight were victims of pituitary insufficiency.

3. There seemed to be no ratio between degree of underweight and basal metabolism readings in the hypometabolism group. It was found that the underweight patients are not thin to the degree that the overweight ones are fat.

4. Study of the relation between basal metabolic rates and weight shows nothing striking. About one-third of the group reported were underweight.

5. Diseases other than hypothyroidism accounted for 33.4 per cent of the patients with hypometabolism.

6. After this group was removed from the series, it was found that more than one quarter of the patients with hypothyroidism were underweight.

7. Of the overweight hypothyroid group, the basal metabolism rates were nearly uniform for the age groups.

8. The same is true of the underweight hypothyroidism patients.

9. A brief summary of recent literature is appended.

Again let it be emphasized that the cases of hypothyroidism reported are those of clinically mild or moderate hypothyroidism. No cases of true myxedema are included.

10515 CARNEGIE AVENUE.

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Edema

The differentiation of edema depends on a study of the intracapillary blood pressure and the osmotic attractive force exerted by the proteins in the blood. A third factor in the form of injury to the capillary wall by a toxin or anoxemia may at times be present. Having determined the fundamental cause of the edema, treatment consists not only in correcting this primary derangement but also in limiting the intake of salt and water, which are important contributing factors.

The nephritic edema (except that of the early stages of acute nephritis) is due to the reduction in blood proteins incident to the albuminuria. Therefore, the development of edema as a complication in nephritis can be anticipated, and appropriate preventive measures taken, if the daily amount of albumin lost in the urine is known. When hypoproteinemia has developed, treatment consists in high protein feeding and, if necessary, the intravenous administration of acacia.—R. R. Snowden, M.D., Pittsburgh, Pa. Pa. Med. Jour., Vol. 42, No. 4, Jan., 1939.

Management of Chronic Urticaria

JONATHAN FORMAN, B.A., M.D.

THE recognition of hives needs no comment, but its management is one of the most difficult of medical problems. In the acute form, the intelligent patient is often able to identify the cause of his trouble. This, however, is a discussion of those cases which have existed for weeks, months, or even years.

Time compels us to be practical. Upon the first visit of such a patient, we should start simultaneous investigations of (1) the possibility of bacterial allergy and/or a chronic infection; (2) drug idiosyncrasies; and (3) atopy.

1. **Bacteria** may be directly or indirectly the cause. This may be because of a bacterial allergy with a nidus at the root of a dead tooth, so small that the X-ray does not reveal it, or it may be because of chronic infection, so severe that the general health has been undermined. This toxic state in turn may act as a precipitating factor to an atopic reaction or a drug idiosyncrasy. The general medical survey should recheck for foci of infection in sinuses, tonsils, adenoids, gall-bladder, appendix, female pelvic organs, prostate, and other sites. These must be cleared up where it is evident that they are interfering definitely with the general health.

The first step in the approach to the problem of bacterial allergy in my opinion, is skin testing with pure cultures of bacteria, sterilized by channeals and not healio. (For details see J. Forman, Bacterial Asthma, *Ohio State Medical Journal*, March, 1935).

BACTERIAL VACCINES FOR SKIN TESTS

Micrococcus Catarrhalis	Staphylococcus Hemolyticus
Streptococcus Viridans	Pfieffer's Bacillus
Staphylococcus aureus	Micrococcus Pharyngitis Sicens
Friedlander's Bacillus	Brucella
Staphylococcus albus	Gonococcus
Pneumococcus	Cecil's Streptococcus Rhumatoid Arthritis
Streptococcus Hemolyticus	Trichophytin
Bacillus Coli	Oidiomycin
Bordet's Bacillus Mucosis Capsulatus	Tuberculin No. 1

The results of these tests must be correlated with the clinical history. Positive reactions of the immediate type are of great significance (atopic reactions to bacterial proteins), but unfortunately of rare occurrence. The delayed, tuberculin-like reaction is much more common, and by itself simply means that there has been sometime in the life of the patient a previous adequate sensitizing exposure to the germ reacting, or to some other germ containing an immunologically related component. The organisms used should include a vaccine of Brucellosis (undulant fever), and the various fungi, especially trichophytin. This being done, the next step is to use graduated doses of very dilute vaccine for increasing the patient's tolerance, and finally the elimination of the infection by surgical measures.

We can finish this section by mentioning the parasite infestations, atypical human scabies, and the wandering mites of scabies in other animals and fowls, must be excluded. The possibility of intestinal parasites, ascaris, oxyuris, tape worms, must never be left out of full consideration.

Then too, we have seen chronic hives due to mycotic infections of the skin. Here all effort must be centered on intensive treatment along this line.

2. **Drug Allergy.** Drugs are among the most common causes of hives, and should be under careful scrutiny from the beginning. No cases of chronic hives should be allowed to continue any previous medication.

This includes all previously employed laxatives, sedatives, soporifices, tonics, douches, contraceptives, nasal sprays, eye drops, mouth washes, even suspected dentifrices, hair dyes, scalp lotions, iodized salts, and their use should be stopped for at least six weeks. The common offending drugs are quinine, ipecac, salicylates, barbiturates, iodides, bromides, phenolphthalein, all opium derivatives, and antipyrin. In these days of radio advertising, many persons do not look upon aspirin and phenolphthalein laxatives as medicine, but as routine necessities, and so the physician must be doubly alert and curious to detect these most common offenders.

3. **Atopy.** All of these investigations, of course, can be carried on simultaneously, and with them should be employed the skin tests and elimination-substitution program of atopy. The most common atopens causing hives are:

Foods	Inhalants and Contactants
Eggs	Feathers
Milk	Oris Root
Wheat	Animal dander
Fruits	Pollens
Nuts	Dust—house
	Silk
	Cotton
	Kapok

These should be tested for with a careful technique. All too often the skin will prove refractory, and no reactions will be obtained.

Where the skin is too irritable to yield readable tests, this irritability can often be overcome by the administration of peptone before each meal.

This is one of a series of editorial summaries on the management of certain diseases.

Then a strict elimination-substitution program usually employed by allergists, must be employed. The patient is put in an allergen-free room. Time can be saved by the use of even more strict elimination diets.

If the scratch test for milk is negative, then an intracutaneous test is done with a 1:10 dilution of sterile protein extract of milk.

If the intracutaneous milk test is also negative; if the patient assures me that so far as he knows the taking of milk has never hurt him, and if he says that he has no real aversion to milk, the patient is put on a strictly milk diet excluding absolutely everything from the diet except milk, and such of its products as have nothing of a protein nature added, viz:—

Milk, Cream, Buttermilk, Acidophilus Milk, Lactic Acid Milk, Junket, Cottage Cheese, Cream Cheese.

MILK AND BANANA DIET

One glass of whole milk every hour (8 ounces) when awake. This would be on the average of 16 glasses a day. Three tablespoonfuls of cottage cheese (no pepper) to be taken at lunch and dinner hour.

One large ripe banana taken at breakfast, lunch and dinner hour.

In addition a frozen cream may be used, if it is made only of cream, sugar, with **no flavoring** or anything else added.

Try this for three days and if satisfactory, then try for one more week.

If, on the other hand, there is a positive skin test for milk (of course, if the scratch test is positive, I should not think of allowing the intracutaneous test to be made), or if the patient feels reasonably sure that milk makes him sick or that "he just cannot drink it", then I put the patient on another simple diet. Just what this will be will have to be determined by skin tests. One which often proves satisfactory when the skin tests are negative is Beef, Rice and Pears.

BEEF, RICE AND PEAR DIET

Breakfast: The patient may take a broiled veal chop; puffed rice or Heinz' rice flakes or steamed rice with butter and sugar. Water alone is allowed for beverage.

Luncheon: Another veal chop or a piece of steak or roast beef. Steamed rice, butter and sugar. Pears (canned or fresh). Cream must not be used.

Dinner: Same as luncheon.

N.B. Obviously soda fountain drinks, candy and even chewing gum must not be touched. Every added substance put in the mouth complicates the problem.

Pepper and sauces of any kind must not be used on the meat.

It must be certain that no milk is left in the butter. "Work over" if necessary to make sure.

All previous medicines and medical accessories are stopped and the patient instructed to use "non-allergic cosmetics, in which there is no powdered orris root, rice powder or volatile oil perfume (N.B. It must be remembered that one or two instances of hives produced by artificial odors have been reported).

While this allergic program is being instituted the general medical survey must give proper consideration to those factors which frequently act as precipitating factors in the production of any allergic manifestation:

1. Barometric changes
2. Heat or cold
3. Light
4. Emotional upsets and worry
5. Fatigue
6. Focal infections
7. Acute and chronic infections
8. Constipation
9. Bodily deficiencies
   - Malnutrition
   - Calcium deficiency
   - Hypochlorhydria or achlorhydria
   - Deficiencies of ductless gland, thyroid, etc.
   - Liver insufficiency
10. Mechanical and chemical irritations.

THE SYMPTOMATIC TREATMENT

Itching as a rule is the one troublesome symptom. Calamine and zinc oxide lotions with phenol, tepid whole baths with Epsom salts, starches, tar emulsions, pine needle oil, bran and oatmeal, are of temporary relief. Injections of 0.15-0.25 cc. of adrenalin 1-1000, repeated as necessary, is the stand-by in the control of the major attacks, but should be used only to help the patient through the most severe exacerbations. Opium and its derivatives are, as a rule, contraindicated.

I use large doses of dissolved calcium lactate by mouth; peptone, 10 grains, 45 minutes before meals; urea nitrate, with the larger meals, or HCL, and prohibition of all alcoholic beverages, routinely, to insure more complete digestion of the protein attained in the diet.

In conclusion, chronic hives present one of the most baffling of allergic problems. Careful systematic medical analysis and treatment will bring a favorable percentage of results, if the physician is alert in following up each possible clue to detect the sensitivity causing the patient's trouble.

One of the most helpful things which we have found is the use of histamine in small graduated dose hypodermically. (Our schedule of dosage is 0.01 cc., 0.02 cc., 0.03 cc., 0.05 cc., 0.05 cc., 0.07 cc., 0.10 cc., 0.15 cc., 0.20 cc., 0.30 cc., 0.40 cc., 0.50 cc., 0.60 cc., 0.70 cc., 0.80 cc., 0.90 cc., 1.00 cc., of 1-1000 diluted gradually. Occasionally this strength will produce the hot flashes and violent headache that is necessary to drop back to a 1-10,000 dilution. The drug should be pushed to a point just below physiological effect.

Case Records Presenting Clinical Problems

The Clinical Phenomena and Anatomical Changes In the Toxemias of Pregnancy.

HARRY L. REINHART, M.D.

A twenty-five year old pregnant colored female entered the hospital complaining of generalized swelling of the body.

Her last menstrual period was approximately seven months previously. About four months after cessation of her menses (second trimester), she noticed that she tired very easily, was constantly sleepy and quite weak. As these symptoms increased, frequent headaches and attacks of vertigo developed. Her appetite was poor; she had no nausea or vomiting and her bowel habits remained regular. About one week previous to admission she noticed edema of her feet, ankles, arms, hands and face. With the appearance of edema she had oliguria, but no hematuria; urinalysis revealed albumin in the urine. She became dyspneic, orthopneic and developed a slightly productive cough with the sputum occasionally blood streaked. She had no chills, fever, or pain in her chest.

Past History—The patient gives no history of any acute infection or operation. She has had nocturia one to two times for the past several years but no other urinary disturbances have been noticed. Her first menstrual period occurred at 13 years of age and the periods have always been regular with a three day flow and 28 day interval. Her first pregnancy occurred three years ago and was terminated at two months by a spontaneous uncomplicated miscarriage. The second and third pregnancies resulted in full term deliveries of live babies one and two years later.

Physical Examination—The patient is a 25 year old, markedly edematous, and dyspneic, colored female. T. 101°, pulse 84, resp. 36, B.P. 110/70. There is marked edema of the face. The pupils are pinpoint in size and do not react to light and accommodation. The ears and nose are negative. The mucous membrane of the mouth is dry and the tongue is red and edematous. Examination of the lungs reveals bronchial breathing throughout. Rales are heard anteriorly over the right apex and at the left base there are rales and a friction rub. The abdomen is large, protuberant and the lower part is pendulous. The abdominal wall is tense and a mass is felt filling the abdomen and extending up to three fingers breadth below the costal margin. The extremities are large and edematous.

Course in Hospital: During the second hospital day she became irrational and her general condition appeared worse. The fetal membranes were ruptured and the patient was delivered of an edematous premature dead fetus. She was given 450 cc. of citrated blood without apparent improvement of her condition. Although she appeared slightly improved on her fourth and fifth hospital days, auscultation of the chest revealed fine crepitant rales throughout both lungs. She became distended and a Wangenstein and a rectal tube were introduced and prostigmin administered. She was incontinent and continued to pass urine until death. A decubital ulcer developed which was treated with tannic acid and silver nitrate. Her temperature ranged from 100° to 104°, and during the last four days was maintained between 103° and 104°. Her pulse rate ranged from 100 to 160/minute and her respiratory rate was about 30/minute. She died on her ninth hospital day, seven days after the induced delivery of a premature fetus.

Laboratory investigations in the hospital revealed a moderate secondary anemia (2,740,000 to 3,280,000 R.B.C. and 70 per cent hemoglobin) a leucocytosis (20,000 to 40,000) with neutrophilic predominance and a shift to the left. The specific gravity of the urine was 1.017; albumin 500 mgm., and 10-15 R.B.C./HPF of the centrifuged specimen. The blood urea nitrogen ranged from 73 to 150 mgm., per cent. The blood serum albumin was 2.6 per cent (normal 4.6—6.7 per cent) and the serum globulin 2.5 per cent (normal 1.2—2.3 per cent). Sputum typing revealed pneumococci type XI.

Discussion:—The clinical and laboratory data are suggestive of an acute exacerbation of a chronic glomerulonephritis, myocardial insufficiency, and terminal pneumonia. The evidence of nephritis may be summarized as follows: nocturia, albuminuria, edema, oliguria, depletion of blood serum albumin, and accumulation of nonnitrogenous waste products in the blood. The evidence of myocardial insufficiency was the low blood pressure, orthopnea, dyspnea, productive and occasional blood streaked sputum and edema of the lungs.

Anatomic diagnosis: (1) Status post partum, (2) retained portion of placenta, (3) acute ulcerative colitis uremic (?) (4) anasarca, (5) toxemia of pregnancy with toxic necrosis of vessels and degenerative lesions in kidneys and liver.

This case illustrates the difficulty of correlation of the clinical phenomena and anatomical phases of toxemia of pregnancy as well as the lack of any definite criteria for classification of this syndrome. Robertson has stated his conviction "that any attempt to correlate clinical phenomena with a given set of pathological conditions is foredoomed to failure, for at one time a particular group of lesions may account for one fairly definite clinical picture, and at another time or in another person an entirely different collection of symptoms, or none at all may result, as far as can be observed from identical pathological alterations."

With this in mind let us examine the following clinical history.

CASE HISTORY

A thirty-five year old, four months pregnant white female entered the hospital complaining of excessive vomiting. The patient was well until two months ago when she began vomiting. The vomitus consisted of food or fluid and the attacks would occur almost immediately after anything was taken by mouth. After three or four

This is the thirty-sixth of a series of cases to be published under the heading, "Case Record Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

days of vomiting she became dizzy and weak and was confined to bed. She experienced no relief and about two weeks ago she noticed that the vomitus was blood streaked. She was treated with glucose intravenously and ice water by mouth, and improved sufficiently to be able to retain small amounts of food and fluids. About ten days ago a yellow tinge of the skin appeared which has persisted. Three days previous to admission she became irrational and vomiting again became severe. Throughout most of her illness she has had marked edema of the lower extremities but recently this has disappeared. Four weeks ago she had a sudden pain above the symphysis and difficulty in passing urine. She passed pus and blood in her urine but this condition cleared up quickly and she had no further similar trouble.

Past History: She had a subtotal thyroidectomy at 14 years of age. For the past five years she has had intermittent swelling of the lower extremities associated with pain and a small lump in the right groin. Five years ago during pregnancy she had severe vomiting for the first three months. She has had five pregnancies and four labors and has four normal children.

Physical Examination: T. 99.6°, P. 116, R. 24. B.P 122/80. The patient is a well developed, poorly nourished pregnant white female, 35 years of age, appearing to be seriously ill. She is dehydrated, jaundiced and at times irrational and disoriented. The skin is warm, dry and shows a yellowish tinge over the entire body. The abdomen is lax and striated. The head is negative except for slight sinus tenderness. There is a moderate nystagmus but otherwise the eyes are not remarkable. The lips are slightly cyanotic and the mucous membrane of the mouth has a slightly yellowish tinge. The oral hygiene is poor; the gums show pyorrhea and the breath is foul. There is a firm egg-sized mass in the midline just below the thyroid cartilage and below this is a scar from a previous thyroidectomy. Examination of the lungs is negative. The heart is not enlarged to percussion and there are no thrills, murmurs or abnormal sounds. The pulsations at the wrists are equal, rapid, regular and of a poor quality. The abdomen is flat and there is generalized tenderness, most marked in both flanks and the pelvis. No masses or viscera are palpable and on percussion the abdomen is tympanitic throughout, except in the flanks where there is dullness. There is a profuse purulent vaginal discharge and the uterus is enlarged to about the size of a three months pregnancy. The extremities show no gross abnormalities except for slight cyanosis of the finger and toe nails.

Course in the Hospital: On admission to the hospital the patient was obviously very ill. She was partially disoriented and she was vomiting frequently. The attempt to induce labor by obstetrical pituitrin and theelin was unsuccessful During this time she complained of generalized bodily aching and pain over the coccyx but at no time did she have any definite labor pains. The cervix was moderately dilated, and some bloody show appeared.

On the sixth hospital day, the patient was taken to the delivery room and a catheter inserted into the uterus. There was a large amount of bleeding and the vagina was packed. Her condition became worse and intravenous fluids and glucose, digifoline, and acacia were given with no improvement. During the last ten hours, the blood pressure fell from 100/70 to 45/? one half hour before death. During the last three days the temperature steadily rose and on the day of her death it reached 102°.

Laboratory data: Wassermann and Kahn test —negative. Blood count, not significant. Icterus index 11, (latent jaundice 4-18), Vanden Bergh, direct negative; indirect 0.4 mgms. per cent. N.P.N. 28 mgm. per cent. Urine: Specific gravity 1.015 to 1.024, albumin 10 to 20 mgm. per cent. Acetone positive, pus cells 8 to 10/H.P.F. centrifuged specimen.

The anatomic diagnosis and more detailed comparison of these cases will appear in the next issue of *The Ohio State Medical Journal.*

Rheumatism and Rheumatic Fever

Patients suffering from arthritis or rheumatic fever are notorious weather prophets and very accurate ones too. This is sufficient evidence in itself that temperature and humidity play a part in rheumatic diseases. It is also a fact that rheumatic diseases most commonly occur where there is a damp, changeable climate.

Studies made by Bland for the American Heart Association have shown that: "Rheumatic fever is responsible for 95 per cent of the defective hearts in childhood. It accounts for more than a third of the crippled hearts in adult life." Hedley says: "Due to its prevalence, age distribution . . . and relatively early ages of death, rheumatic heart disease is an extremely important public health problem. It results in 15 to 40 per cent of heart disease, depending on the locality. The average age at death is about 30 years. It causes at least 40,000 deaths in the United States annually. Paul estimates there are 840,000 cases." Jones says the average duration of life of a patient with rheumatic heart disease is 15 years from the onset of the infection. I cite these figures and statements to illustrate the importance of one type of rheumatism. So far medical treatment has been very unsatisfactory. It consists of removal of focal infection and bed rest for prolonged periods. Stroud studied 307 children between the ages of 3 and 13 years who were admitted to the Children's Heart Hospital of Philadelphia. The patients were selected so that none who had heart failure or a hopeless outlook was included in the study. These children were placed under ideal conditions for treatment in a nursing home in the country. On discharge they were supervised by social service workers and brought back for periodic examinations. If the disease recurred they were hospitalized again. At the end of ten years, of the 307 patients, 125 or 40.7 per cent were dead or totally disabled, and 182 or 59.3 per cent were working or able to work.—Albert G. Young, Ph.D., M.D., Refrigerating Engineering, Vol. 36, No. 6, Dec., 1938.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

AGE INFLUENCES TUBERCULOSIS

DIFFERENCES in the tuberculosis mortality rate at the different periods of life have been regarded by many as evidence that there are corresponding differences in native resistance at the various age periods. Simple mortality rates are, however, influenced by important factors other than age. We are interested, therefore, in knowing the number of deaths in relation to the **infected** portion of a given age group. Statistics regarding the incidence of infection by age groups are incomplete and woefully lacking for adult groups and for infants in the first year of life. Another difficulty is that hypersensitivity to tuberculin may fall to a low level a year or two after infection and consequently tuberculin test surveys do not always give a true picture of the amount of infection.

Despite these difficulties it is possible to make a conservative estimate of the incidence of infection for each group. The author has collected statistics from numerous sources and constructed a table showing the ratio of tuberculosis deaths to the number of infected persons by age groups. From this table we may draw the following conclusions:

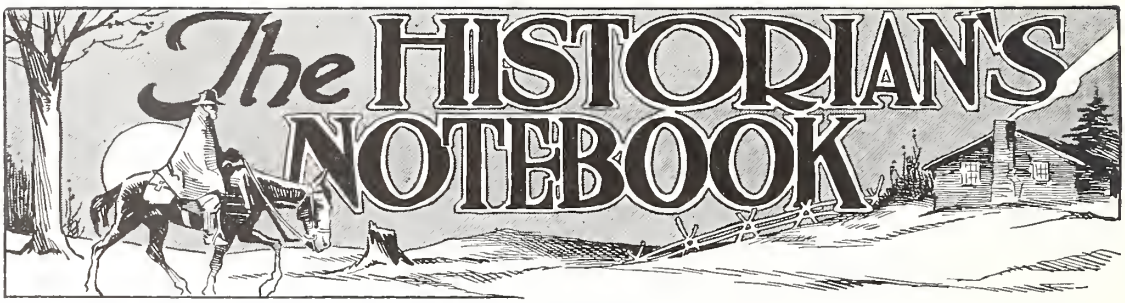
1. That tuberculosis is most fatal during the first year of life;
2. That it is much less dangerous, but still markedly so during the succeeding several years;
3. That the period between five years and puberty is a strikingly "safe" period, during which the mortality from the disease decreases in spite of the fact that the incidence of infection increases.
4. That following the age of puberty there occurs a sharp increase in the death-hazard among those infected.
5. That the increase in the tuberculosis mortality-hazard continues steadily into adult life, reaching a peak in the middle twenties, after which it continues at an elevated level throughout the remainder of the life span, but with variations that depend upon sex, occupation and economic conditions.
6. That in old age there occurs a second peak of mortality-hazard.

The most dangerous age period in which to be infected is that of the first five years of life, and most particularly during the first year; the safest period is that between five years and puberty. From puberty onward the chance of dying if infected increases rapidly until it reaches a peak, the precise age period of which is inconstant in the total population and may be different for each sex at different periods of time. The mortality rate among the infected is always high in old age, but it may be lower than the first adult peak. How are these age peculiarities to be explained, and what relation, if any, do they bear to age-determined differences in native resistance?

The author concludes: "The peculiarities of susceptibility and resistance at the various age periods, and the manner in which external factors act to alter resistance, constitute, perhaps, the most important problems in tuberculosis today, not only from a theoretical but, indeed, from a highly practical standpoint; and they deserve the most serious and intensive investigation. In this review of the general outlines of the problem, I have sought chiefly to stress the narrow limits of our present information, rather than to provide a series of comfortable, theoretical explanations for these complex and incompletely understood phenomena."—Arnold Rice Rich, M.D., Minnesota Medicine, Vol. 21, No. 11, Nov., 1938.

Air Conditioning and Allergy

The temperature and humidity are least important here, but constancy of both is of some value since it is known that allergic patients are unable to adjust their bodies to sudden changes of temperature or humidity and that most of them are improved by a warm dry climate. In such environment the hay fever patient will obtain relief within the first two hours. The asthma and skin sensitivity patients will require from eight hours to several days to show improvement. If the patient does not improve under these conditions the physician can be certain that his allergy is "intrinsic" (due to food, focal infection, etc.) rather than "extrinsic" (due to inhalants or contact). This is one of the diagnostic values of air conditioning. It is also of value in diagnosis in "extrinsic" cases. The patient who is in an acute attack of hay fever or asthma gives a positive skin test for almost any allergen. It is therefore impossible to obtain reliable skin tests until the acute attack has subsided. Under an air conditioned environment the attack will subside and the skin tests may then be carried out. It also permits the physician to carry out "rush" treatment as described by Brown. That is, the patient can be given six months treatment in six to twelve days.—Albert G. Young, Ph.D., M.D., Refrigerating Engineering, Vol. 36, No. 6, Dec., 1938.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Excerpts From "Practical Essay On Medical Education And The Medical Profession In The United States"

DANIEL DRAKE, M.D.

The Author

● Dr. Drake (1785-1852) outstanding medical educator west of the Alleghenies, was the founder of the Medical College of Ohio, now the University of Cincinnati College of Medicine.

OF the various occupations in society, scarcely one requires greater talent and knowledge than the medical profession.

The student of medicine should not only be of sound understanding, but imbued with ambition. A mere love of knowledge is not to be relied upon, for the greatest lovers of knowledge are not infrequently deficient in executive talents, and go on acquiring without learning how to apropriate. A thirst for fame is indeed a safer guaranty than a taste for learning, as it generates those executive efforts which are indispensable to the successful practice of medicine.

Further, the temperament of the youth should be that of industry and perseverance, without which he will balk at every difficulty, and require to be goaded on through all stages of his pupilage. An indolent or irresolute student, whatever may be his genius, can never figure as a physician, and should, without delay, be apprenticed to some vocation in which the destruction of limbs and life will not be the inevitable consequence of idleness and discouragement. We may hope that the time is not distant when the proportion of talented youth who are dedicated to the study of physic will be much greater than at present.

The consequences of this deficiency of talent in the profession are of serious import to the science and to the people at large. It is unquestionably one of the causes which retard the progress of discovery and improvement. Of the thousands who annually go forth with diplomas or licenses, or without either, to engage in the practical duties of the profession, very few ever contribute a single new fact to its archives, or communicate an impulse to the minutest wheel in its complicated machinery. Acting on the precepts of others, they may, it is true, do some good, but they also do much harm; while to the great work of revising and correcting the principles of the science they are, of course, utterly incompetent.

Our forefathers—most of whom were illiterate—emigrated to a forest, which it has been the occupation of their sons to subdue. In the prosecution of this Herculean task and the subsequent establishment of institutions, political, social, and literary, they frequently experienced a want of appropriate means, and were compelled by the exigencies of their novel and trying situation to think and act with originality. Hence arose a feeling of self-reliance; a spirit of independence; a disregard of ancient customs; to which we may in a great degree ascribe that indifference to the languages and learning of antiquity which characterizes the majority of our citizens.

But a thorough course of preparatory learning is useful in more ways than one. It establishes early habits of application; generates a love of knowledge; trains the faculties; and inspires that firmness of purpose which prevents him who puts his hand to the plough from looking back. These are the cardinal virtues of a student; and they are in a great degree the effect of cultivation. We look instinctively at the grand and beautiful aspects of nature, but this is poetry, not philosophy. A poet delineates the surface; a philosopher decomposes the substance of things. One is born, the other called to his vocation. Education never made a great poet, nor nature a good philosopher. He is essentially the product of art. Toil is his destiny. He must sink a deep shaft and draw up his treasures from below.

Therefore he should be strengthened by timely and active effort. He must be inured to labor, and acquire adroitness in its performance. Hence he should begin early, for then only can suitable habits be formed.

The principal branches of literature and auxiliary science to which the student of medicine should devote a portion of his time are:

1. English grammar and the art of composition.
2. Physical geography, embracing the leading facts in meteorology.
3. The outlines of history.
4. The elements of mathematics and natural philosophy.
5. The French language.
6. The Latin and Greek languages.

In medicine, as the other sciences, that method is best which requires the student to take nothing on trust—to anticipate no principle or leading fact. The whole course should, therefore, as far as possible, be purely synthetical.

In conformity with this opinion he ought to begin with chemistry; provided that science had not made a part of his academical or collegiate studies. It is not necessary, however, that he should go extensively or minutely into the practical details of this science, as the object is merely to prepare him for a proper understanding of the chemical terms with which he will meet in the study of physiology.

Relinquishing chemistry he should engage in special anatomy, which may be studied in the following order: (1) the bones, (2) the muscles, (3) the viscera, (4) the blood and absorbent vessels, (5) the brain and nerves. He is now prepared for general anatomy, and should make himself familiar with the anatomical relations and dependencies of the various organs.

He will thus qualify himself for the study of physiology, the foundations of which are anatomy and chemistry; and his progress in that important branch of the profession will be in proportion to the accuracy of his anatomical and chemical knowledge. Having made a survey of the nutritive or vegetative functions, he should proceed to the animal; terminating his inquiries with the intellectual. Thus the close of his physiological course will embrace the philosophy of mind; a branch of science, if science it can as yet be called, whose dignity and undeniable connection with the study of mental alienation may compensate for the obscurity of its data and the uncertainty of its deductions.

From physiology he may proceed, by a natural transition to acquire an outline of pathology.

Having thus added to his chemistry a competent knowledge of the first principles of natural history, the student approaches the composite science of materia medica, with conscious preparation and a confidence favorable to success.

Finally, he arrives, by a regular transition, at the practice of the profession—its therapeutics and operations. He studies the indications of cure, and labors to establish in his mind correct association between symptoms and remedies —an association not arbitrary and empyrical, but founded on an ample and accurate knowledge of the functions of the living body in their regular and irregular conditions; and of the influence of external agents in the production and cure of diseases.

1. If he now finds deficiencies in any of his preliminary acquirements, he should supply them, without delay, by recurrence to the branches in which they are discovered to exist.
2. In ascertaining general principles he should carefully note those which are of a doubtful character and rest upon them as few rules of practice as possible.
3. His practical maxims, in all cases, should be logical deductions from his principles.
4. If they do not conform to those of the great and original writers of the profession, he should doubt their correctness and act upon them cautiously, but not reject them without a trial.
5. He should recollect that the same diseases in different countries, frequently require variations in their treatment, and that he must not implicitly adopt the rules of practice that have been found successful elsewhere.
6. When he meets, in practical work, with different modes of treatment for the same disease, he should not suppose that one only can be correct and the others necessarily erroneous, for disease may be cured by various methods.
7. In his practical readings he should always prefer original works to compilations, and monographs to systems.
8. He must be on his guard against the delusion of a fancied simplicity in the system which he constructs. Every complex machine is liable to a variety of irregular movements which can only be reduced to order by a corresponding diversity of means. But of all machines, the human body is the most complicated, exhibits the greatest number of disordered actions, all differing from each other, and requires the greatest variety of remedial applications.
9. When arrived at this stage of his studies, he should no longer stand aloof from the practical duties of the profession, but avail himself of frequent opportunities to make an application of his knowledge. This is the end for which he has studied, and his final success will be proportionate to the facility and effect with which he can make such application.

Medical colleges, on their present plan, were not known till since the revival of letters in Europe. For two or three centuries they were few in number and chiefly sustained by the genius and labors of individual professors, of whom Boerhaave, Haller, and the first Monro, may be cited as illustrious examples. The eighteenth century augmented their number and established their importance, but it was reserved for the nineteenth to multiply them to an unprecedented degree and show that they may be composed in part of men whom the pride of science would formerly have pronounced unfit for such a lofty and difficult duty.

For myself, I am convinced that every medical

school ought to have eight professors, and that with less than six, it should, in the phrase of Lord Bacon, "be noted as defective." As to the distribution of the duties, there may be some diversity of opinion; but the profession, generally, would perhaps concur in the following: (1) anatomy, (2) institutes of medicine, (3) practice of medicine and clinical cases, (4) surgery, (5) materia medica, (6) chemistry and pharmacy, (7) obstetrics, (8) medical jurisprudence.

Students of medicine should be gentlemen in the lecture room as well as the drawing-room, and consider it discreditable to abandon themselves to levity, mischief, and idleness, all of which are not less at variance with propriety than improvement.

I shall here offer a summary view of the desiderata which our medical institutions seem to me to present, and shall make no other apology for the repetition it may involve than the great importance of the subject:

1. An increase of the length of our sessions to at least five months.
2. An augmentation of the number of professors to at least seven, with a general refusal to recognize schools that have not more than four or five.
3. The election of professors for five or seven years, instead of an indefinite time.
4. Students should not be allowed credit for a course unless they matriculated by the end of the first week of the didactic lectures and then remained to the end of the session.
5. At least four years should elapse from the commencement of the pupil's studies until his graduation.
6. He should be required to show that he is twenty-one years old.
7. Increased attention should be paid to the preparatory or academical attainments of candidates.
8. The examinations for a degree should be more searching than they are generally made. This, it is true, would diminish the amount of graduation fees received by professors, but the public would be gainers.
9. Every candidate should be required to publish his thesis, and a premium should be awarded to the author of the ablest of these productions.
10. Summer lectures, especially on the collateral and auxiliary sciences, ought to be encouraged, and the candidate should be required to have some knowledge of those branches.
11. A stricter regard should be had to the moral character of candidates, who should never be admitted to examination until they had deposited with the dean satisfactory evidences of good reputation.
12. Lastly, as a means of promoting this object and of advancing the respectability of the profession, there should be in every medical school a series of Sunday morning discourses by one of the professors on the morale of the profession and the virtues and vices of medical men, embracing their duties to their patients and a system of medical ethics.

I shall conclude with a few hints to professors on the means of making their prelections interesting and instructive.

A dull lecture is a great evil. Politeness may reconcile the majority of a class to such a lecture, but it falls dead-born from the lip of the professor. To listen, day after day, for several hours, through four months, even to animated speakers, is a serious undertaking; but to sit from hour to hour, beneath those who, "through the long, heavy, painful page, drawl on," is intolerable to all who have not a facility in resorting to early and sound sleep; the usual and best resource under such a calamity. There is an eloquence of the lecture room as well as of the bar and pulpit which every professor should attain, or feel himself in duty bound to resign, so as not to exclude a competent man.

The faculty of awakening and sustaining the attention of an audience is in some degree a gift of nature, and may be wanting when other requisites are not. An original or eccentric manner is often the secret of success; illustrations by means of anecdotes, skillfully introduced, produces the same effect; episodes may be so managed as to answer the purpose; flights of fancy, if well timed, will accomplish the end in view; while in the absence of a talent for the whole of these unexpected and pertinent questions with familiar conversational remarks on the answer that may be given, will resuscitate the drooping energies of the class and enable them to hold out to the end.

The causes which prevent the discovery of truth in the medical and physical sciences are too numerous to be embraced in a single essay; while many of them are too much concealed to be brought to light by any but a man of genius and extensive observation. Those of which I propose to treat are common and, therefore, susceptible of being exposed.

The first of these is the disproportion between the strength and grasp of our intellectual faculties and the number and variety of objects upon which they are to be exercised.

The second, another reason why we slowly arrive at philosophical truth, is that we seek it without due preparation.

The next cause of failure in the pursuit of philosophical truth is more deeply rooted. It consists not so much in the deficiencies as the errors of early education.

Another impediment to the acquisition of truth is fickleness of attention.

Another cause of error consists in forming conclusions while we should still be observing.

The next obstacle to the discovery of truth is vividness of fancy.

The next obstacle to the discovery of truth is impatience.

Pride is a stubborn obstacle to the discovery and reception of truth.

Excessive deference for authority—in some degree the opposite of pride—contributes equally to the perpetuation of error.

A defective love of truth is another cause of error in the profession.

A defective ambition is the last source of error to which I shall refer.

Let's Give the Public the Real Facts

Effective Public Relations Can Be Started in All Parts of Ohio If the Membership Will Support the Expansion Program Which Has Been Recommended by The Council

By BARNEY J. HEIN, M.D., President

FOR too many years the medical profession has been lax in the matter of presenting its views on medico-economic questions and accurate information on medical and public health subjects to the public. Now, when it is confronted with an emergency, arising from attempts to remake the practice of medicine and critical sharpshooting from all sides, the profession is beginning to realize that it **must modernize its public relations and strengthen its methods of reaching the public ear through public education.**

In the January, 1939, issue of *The Journal*, pages 77 to 81, under the caption, "Shall We Advance or Retreat", I presented a general analysis of the expansion program which has been approved by The Council and will be presented to the House of Delegates for approval at the 1939 Annual Meeting in May. It was pointed out at that time that one of the most important projects which The Council will inaugurate, if the House of Delegates approves **the expansion program and the nominal increase in annual dues for the purpose of financing it,** will be to establish in the State Headquarters Office **proper machinery for carrying on an effective public relations program** throughout the state. That we need such machinery and such a program seems quite apparent to me.

If the medical profession wishes to become vocal—to express its opinions to the public in an effective manner—it must employ the proper technique. **First,** it should create an agency within its own organization and State Headquarters Office, over which it will have complete control. **Second,** it should provide trained personnel to supplement the full-time personnel at Columbus to handle the job of public relations and give such personnel the tools with which to work. **Third,** under the supervision of the Columbus office and its public relations agency, it should launch a program of public education by using newspapers, periodicals, direct mail, radio, public addresses, and other media which may be available. **Fourth,** this should be a long-range program —changes do not take place over night; the "emergency" which confronts the profession will, in my opinion, be more or less permanent.

Through such a setup and program, the State Association would be able to be of indispensable help to all county medical societies and academies. The soldiers in the front line will have to be the physicians of Ohio. The job of our public relations agency would be to work in the background, grinding out the ammunition for us to use and setting the stage for our activities. Some of the larger medical societies are partially equipped to do something in this field at the present time; **most of the societies are not.** All the societies need help and guidance on this important project and they are looking to the State Association for the right kind of assistance. **Assistance will be forthcoming if the membership will support the recommendations of The Council by instructing delegates to vote for the expansion program at the Toledo Annual Meeting in May.**

Pertinent Data Regarding Federal Income and Payroll Taxes and Returns and Ohio Personal Property Tax

MOST Ohio physicians, along with other taxpayers, must file certain Federal and State tax returns and pay certain taxes during the next few months.

These returns and taxes, with the place and last date for filing or payment, include: Federal Income Tax Information Return, listing salaries and wages paid during 1938, with the Commissioner of Internal Revenue, Washington, D. C., **February 15**; Ohio Personal Property Tax Return, with County Auditor, between **February 15 and March 31**; Federal Income Tax Return for 1938, and first quarterly payment, with the District Collector of Internal Revenue, **March 15**; Social Security (Old Age Benefits) Tax, affecting all employers of one or more persons, first quarterly informational return and tax for January, February and March, 1939, **April 30**; State Unemployment Compensation Tax (for employers of three or more persons), Employers' Contribution Report and Tax, with the Unemployment Compensation Commission, Columbus, **January 31**, for period October 1 to December 31, 1938, and **quarterly thereafter**; Federal Unemployment Compensation Tax (for employers of eight or more persons), with District Collector of Internal Revenue, **January 31**, for calendar year 1938.

To assist members of the Ohio State Medical Association who are required to file the above returns and pay Federal and State taxes, *The Journal* presents herewith detailed provisions of the tax laws especially affecting physicians and suggestions as to procedure, based on authoritative information obtained from Federal and State tax officials.

FEDERAL INCOME TAX

COLLECTORS of Internal Revenue in Ohio have mailed to all taxpayers of record, blanks for making Federal Income Tax returns for the calendar year 1938.

These blanks, properly filled out, must be filed with the collector of the district in which the taxpayer resides, on or before March 15, 1939.

Any physician required to make a return, but who fails to receive an income tax blank, should apply to the Collector of Internal Revenue for his district.

Internal revenue districts of Ohio, together with the name and address of the collector, and the counties comprising each district, follow:

For the Columbus District (Ohio 11th) Collector of Internal Revenue Harry F. Busey, Federal Building, Water and Gay Sts., Columbus, Ohio; comprising the following counties:

Adams, Athens, Coshocton, Delaware, Fairfield, Franklin, Gallia, Guernsey, Hocking, Jackson, Knox, Lawrence, Licking, Madison, Marion, Meigs, Morgan, Morrow, Muskingum, Noble, Perry, Pickaway, Pike, Ross, Scioto, Union, Vinton and Washington.

For the Cleveland District (Ohio 18th) Collector of Internal Revenue Frank F. Gentsch, 262 Federal Building, Cleveland, Ohio; comprising the following counties:

Ashland, Ashtabula, Belmont, Carroll, Columbiana, Cuyahoga, Geauga, Harrison, Holmes, Jefferson, Lake, Lorain, Mahoning, Medina, Monroe, Portage, Richland, Stark, Summit, Trumbull, Tuscarawas and Wayne.

For the Cincinnati District (Ohio 1st) Collector of Internal Revenue Thomas J. Connor, Customs Building, Cincinnati, Ohio; comprising the following counties:

Brown, Butler, Clark, Clermont, Clinton, Fayette, Greene, Hamilton, Highland, Miami, Montgomery, Preble and Warren.

For the Toledo District (Ohio 10th) Collector of Internal Revenue Charles H. Graves, Toledo, Ohio; comprising the following counties:

Allen, Auglaize, Champaign, Crawford, Darke, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Logan, Lucas, Mercer, Ottawa, Paulding, Putnam, Sandusky, Seneca, Shelby, Van Wert, Williams, Wood and Wyandot.

INFORMATION RETURNS

In addition, every person making payments of salaries, wages, interest, rents, commissions, or other fixed or determinable income of $1,000 or more during the calendar year 1938, to a single person, a partnership, or a fiduciary, or $2,500 or more to a married person, is required to make a return on Forms 1096 and 1099 showing the amount of such payments and the name and address of each recipient. These forms may be obtained from any District Collector of Internal Revenue on request.

Salaries of office assistants and other employes

coming under this provision must be reported, also office rent, unless paid to a corporation.

Such returns covering the calendar year 1938 must be forwarded to the Commissioner of Internal Revenue, Sorting Section, Washington, D. C., in time to be received not later than February 15, 1939.

BLANKS AND FORMS

The procedure for filling out income tax blanks and computing the tax for the past year is in accordance with the Revenue Act of 1936, and except for some minor changes in the form of the blank, is substantially the same as last year.

Physicians and other professional men, are required to use Form 1040 in submitting returns, regardless of the amount of net income. The sole exception is a physician not in private practice, receiving a salary, whose net income is less than $5,000. In such cases, Form 1040-A should be used.

Income tax returns must be filed in duplicate, and a penalty of $5 is provided for failure to file a duplicate return. The duplicate will be made available by the Internal Revenue Department to the State Tax Commission for the purpose of checking personal property tax returns.

PROCEDURE FOR PHYSICIANS

Following is a detailed analysis of the procedure physicians should follow in filling out blanks for their 1938 income and an example of how computations should be made:

Every physician whose net income for 1938 was $1,000 or more, if single, and $2,500 or more, if married, must file an income tax return on or before March 15, 1939. He also must file a return if his gross income was $5,000 or more, irrespective of marital status and net income.

All groups, joint ventures and other incorporated organizations must file returns as partnerships or corporations. Such returns must list the names and addresses of the individuals who would be entitled to share in the net income if distributed and the amount of the distributive share of each individual. The members of such groups or corporations must report their distributive shares as their own income.

In order to expedite checking of returns, and eliminate the possibility of unnecessary correspondence or investigations, physicians are urged to fill out all schedules in their returns.

GROSS INCOME

Gross income includes gains, profits and income derived from professional services, business activities, salaries, wages, sales, dealing in, or exchange of real or personal property, rents or royalties, dividends and interest, bonuses received as compensation, money collected on old accounts charged off in previous years as "bad debts", and funds received from all other sources.

PERSONAL EXEMPTIONS

If married and living with wife, or the head of a family, for the entire year, an exemption of $2,500 is allowed; if single and not a head of a family, an exemption of $1,000 is permitted, as credit against net income for the purposes of the normal tax and the surtax.

Credit of $400 is permitted for each dependent under 18 years of age or each physically or mentally handicapped dependent regardless of age. The credit is not allowed in the case of a dependent minor over 18 years of age even if such minor is attending school.

The names and relationships of dependents for whom a credit is taken must be shown on Schedule J, page 4 of the return.

In case of a change during the calendar year of the status of the physician in so far as it affects the personal exemption or credit for dependents, the personal exemption and credit should be apportioned in accordance with the number of months after such change. Authority for prescribing rules and regulations for such apportionment is given to the Commissioner of Internal Revenue.

A husband and wife living together shall receive but one personal exemption. The amount of such personal exemptions is, as previously stated, $2,500. If such husband and wife make separate returns, the personal exemption may be taken by either or divided between them.

ITEMS NOT REPORTABLE AS INCOME

The following items **should not** be included in gross income tax since they are **exempt** to Federal income tax:

Amounts received under a life insurance contract paid by reason of the death of the insured; whether in a single sum or in installments (but if such amounts are held by the insurer under an agreement to pay interest thereon, the interest payments shall be included in gross income).

Amounts received (other than amounts paid by reason of the death of the insured and interest payments on such amounts and other than amounts received as annuities) under a life insurance or endowment contract, but if such amounts (when added to amounts received before the taxable year under such contract) exceed the aggregate premiums or consideration paid (whether or not paid during the taxable year) then the excess shall be included in gross income. Amounts received as an annuity under an annuity or endowment contract shall be included in gross income; except that there shall be excluded from gross income the excess of the amount received in the taxable year over an amount equal to 3 per cent of the aggregate premiums or consideration paid for such annuity (whether or not paid during such year), until the aggregate

amount excluded from gross income equals the aggregate premiums or consideration paid for such annuity.

Gifts (not made as a consideration for service rendered) and money and property acquired by bequest, devise, or inheritance (but the income derived from such property is taxable and must be reported).

Interest upon (1) the obligations of a State, Territory, or any political subdivision thereof, or the District of Columbia, or United States possessions; or (2) obligations issued under the provisions of the Federal Farm Loan Act or under such act as amended; or (3) the obligations of the United States; or (4) obligations of instrumentalities of the United States (other than obligations issued under Federal Farm Loan Act or under such Act as amended), such as Federal Farm Mortgage Corporation bonds, Home Owners' Loan Corporation bonds, etc. The interest on United States Savings Bonds and Treasury Bonds, owned in excess of $5,000, and on obligations of instrumentalities of the United States (other than obligations issued under Federal Farm Loan Act or under such Act as amended) is subject to surtax if the surtax net income is over $4,000.

Amounts received through accident or health insurance or under workmen's compensation acts, as compensation for personal injuries or sickness plus the amount of any damages received, whether by suit or agreement, on account of such injuries or sickness.

Compensation paid by a State or political subdivision thereof to its officers or employees for services rendered in connection with the exercise of an essential governmental function.

Amounts received as earned income from sources without the United States (except amounts paid by the United States or any agency thereof) by an individual citizen of the United States who is a bona fide nonresident for more than 6 months during the taxable year. The taxpayer in such a case may not deduct from his gross income any amount properly allocable to or chargeable against the amount so excluded from his gross income.

DEDUCTIBLE ITEMS

In computing net income, the following items may be deducted by a physician from gross income:

Office Rental—If a physician pays rent to another person for office space, he may deduct such amount. If he owns his own home and maintains an office in it, he **cannot** claim deduction for office rent. However, he is entitled to claim depreciation on that portion of the property occupied as an office.

Automobile—The cost of repair and upkeep of an automobile, including gasoline and oil, used in professional visits may be deducted. That part of the salary paid to a chauffeur and attributable to time spent in driving his employer on professional calls, may be deducted. Sums spent for taxi hire, car fare, etc., while on professional calls, may be deducted.

Loss on an automobile used in professional business through depreciation may be deducted The depreciation which should be deducted annually is figured by dividing the cost price of the machine by the number of years of its usefulness. If a physician has one automobile which is use exclusively in professional business, he may deduct the full depreciation each year. If the machine is used only partly in professional business the deductible depreciation should be computed on the basis of the amount of time the car is used for professional purposes. If a physician possesses two cars, each of which is used partly in professional business, the deductible depreciation on each car should be computed on the basis of the amount of time each car is used for professional purposes. In other words, if an automobile is used only partly for business purposes, depreciation may be deducted only on a proportionate part thereof, the amount of depreciation depending on the amount of time the machine is used in professional business.

It is suggested that physicians be prepared to substantiate claims for deductions from gross income for professional use of automobiles in case income tax officials should call on them for written records to show the mileage traveled by them in connection with professional practice, or to prove just what part of their automobile maintenance expense was a professional expense, and therefore deductible.

Professional Dues—Dues paid to professional associations to which, in the interest of his profession, the physician belongs, may be deducted. Expenses incurred in taking graduate courses have been held **not** to be deductible.

Traveling Expenses—Traveling expenses necessarily incurred by a physician on professional calls and in attending medical conventions for a professional purpose are deductible from gross income.

Salaries and Wages—Deductions are permitted for the salaries or wages of nurses, laboratory workers, technicians, assistants, stenographers or other clerical workers in a physician's office so long as their duties are connected with professional work; also for wages paid maids, janitors, etc., for services rendered in connection with professional practice.

Medicines, Supplies, etc.—Cost of medicines used in the office to treat patients, medicine dispensed, bandages, laboratory materials, chemicals, and other supplies "consumed in the using"

and necessary to operate the office may be deducted.

Equipment, Furniture, Library, etc.—Cost of surgical instruments and laboratory appliances of more or less permanent value may not be deducted but a percentage of the purchase price may be deducted annually under a depreciation account. The same rule applies to office furniture and books purchased for the physician's office library. If improvement to offset obsolescence and wear and tear or injury has been made and deduction for the cost claimed elsewhere in the return, claim should not be made for depreciation.

General Office Expenses.—The cost of telephone, telegrams, heat, light, water, etc., used in professional service is deductible. Physicians who keep current magazine and newspapers in their waiting rooms for the benefit of their patients, may deduct this item as a business expense. The cost of professional journals for the physician's own use is also a deductible item.

Debts—If the physician's books are kept according to the "Cash Receipts and Disbursements" system, he may not charge off any unpaid debt because he is then only reporting as gross income those accounts which have proved to be good. Bad accounts have not been reported and are therefore not deductible.

If books are kept on an "Accrual Basis" (where expense is actually incurred and payable even though not yet paid, or income earned although not yet collected) it is permissible to charge off all debts which have been definitely ascertained to be worthless during the fiscal year covered by the report.

The physician using this latter system must be careful to include in gross income bad debts which have been charged off in previous years but collected during the calendar year for which the return is filed.

Taxes and Licenses—All state and county taxes, except those assessed against local benefits of a kind tending to increase the value of the property assessed and those imposed upon the taxpayer upon his interest as shareholder of a corporation which are paid by the corporation without reimbursement from the taxpayer, are deductible.

Sales tax payments may be deducted. A reasonable allowance will be permitted in proportion to the physician's income. Should the claimed exemption appear too large, however, the burden of proof falls upon the taxpayer, and **he may be called upon to produce purchase receipts to substantiate his claim.** Sales tax coupons are **not** considered sufficient evidence.

All Federal taxes except income, war-profit and excess-profit taxes are deductible, including Federal excise taxes collected direct from the consumer or purchaser.

Federal Old Age Benefits and Unemployment Compensation taxes paid by employers under the Social Security Act are proper deductions in making income tax returns. Such taxes are deductible on returns for the taxable year in which they are accrued or paid, depending upon the method of accounting employed by the taxpayer. However, Federal Old Age Benefits payroll deductions from employes' wages are not proper deductions from individual Federal income tax returns. The reason for this latter distinction is that the individual employee at a future date will have returned to him in the form of pensions the money which is deducted from his current wages.

The Ohio Gasoline Tax is deductible to the extent of three cents per gallon. If a physician has already deducted the cost of gasoline used in making professional calls as automobile expense, he cannot of course make an additional deduction of three cents per gallon for gasoline so used. However, he may deduct that amount on gasoline purchased for other than professional use.

All license fees which the physician is required to pay are deductible, including the narcotic tax, automobile license tag fee, local occupational taxes, taxes on club dues, etc.

Interest—Amounts paid out as interest upon indebtedness (except interest paid to carry nontaxable securities) are deductible.

Losses by Fire and Theft—Loss of and damage to a physician's equipment by fire, theft, or other cause, not compensable by insurance or otherwise recoverable, may be computed as a business expense, and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent to which it has not been made good by repair and the cost of the repair is claimed as a deduction.

Insurance Premiums—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries to a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. Premiums paid on life insurance are not deductible.

Legal Expenses—Expense incurred in the defense of a suit for alleged malpractice is deductible as business expense. However, expense incurred in the defense of a criminal action is **not** deductible.

Contributions, Gifts, etc.—It is permissible to deduct from gross income contributions made to charitable, religious, educational and scientific organizations, no substantial part of the activi-

ties of which is carrying on propaganda, or otherwise attempting to influence legislation, to an aggregate amount not to exceed 15 per cent of the net income, exclusive of such contributions.

NORMAL TAX RATE

The normal tax rate on 1938 income is 4 per cent on all net income in excess of exemptions and credits.

SURTAX RATES

In addition to the normal tax, a surtax is levied on surtax net income, that is, net income less the personal exemption and the credit for dependents, as follows:

Surtax net income of $4,000, no surtax; $4,000 to $6,000, 4 per cent; $6,000 to $8,000, 5 per cent; $8,000 to $10,000, 6 per cent; $10,000 to $12,000, 7 per cent; $12,000 to $14,000, 8 per cent; $14,000 to $16,000, 9 per cent; $16,000 to $18,000, 11 per cent; $18,000 to $20,000, 13 per cent; $20,000 to $22,000, 15 per cent; $22,000 to $26,000, 17 per cent; $26,000 to $32,000, 19 per cent; $32,000 to $38,000, 21 per cent; $38,000 to $44,000, 24 per cent; $44,000 to $50,000 27 per cent; $50,000 to $56,000, 30 per cent; $56,000 to $62,000, 33 per cent; $62,000 to $68,000, 36 per cent; $68,000 to $74,000, 39 per cent; $74,000 to $80,000, 42 per cent; $80,000 to $90,000, 45 per cent; $90,000 to $100,000, 50 per cent; $100,000 to $150,000, 52 per cent; $150,000 to $200,000, 53 per cent; $200,000 to $300,000, 54 per cent; $300,000 to $400,000, 55 per cent; $400,000 to $500,000, 56 per cent; $500,000 to $750,000, 57 per cent; $750,000 to $1,000,000, 58 per cent; $1,000,000 or more, 59 per cent.

EARNED INCOME CREDIT

For purposes of the normal tax, an earned income credit is allowed by means of a deduction from net income of an amount equal to 10 per cent of the earned net income. If the taxpayer's net income is not more than $3,000, his entire net income is considered to be earned net income. If his net income is more than $3,000, his earned net income shall not be considered less than $3,000 but in no case shall the earned net income be considered more than $14,000.

HOW COMPUTATIONS ARE MADE

An example of how computations are made is given here for the information of physicians. The figures used in the following tabulations may appear out of proportion to the actual income of the average physician during 1938. However, they are used merely to illustrate how the normal and surtax rates should be applied.

If a married physician with no dependents and who rents his home and office had a gross income during 1938 of $15,000 and ordinary expenses, he should submit the following data on his return and compute his tax as follows:

Gross Income

Income from professional services		$12,000.00
Income from other sources:		
Rent from apartment	$1,500.00	
Taxable interest, dividends	1,500.00	
	$3,000.00	3,000.00
Gross Income		$15,000.00

Deductions

Depreciation of office furniture, etc.	$ 400.00	
Salaries and wages for office help	1,500.00	
Telephone, heat, light, etc.	400.00	
Automobile cost and depreciation	800.00	
Drugs, bandages, medicines, etc.	2,500.00	
Traveling expenses to medical meetings	300.00	
Office rent	800.00	
Dues, insurance	200.00	
Miscellaneous expense	100.00	
Business expenses	$7,000.00	
State Sales Tax	75.00	
Old age benefit tax	15.00	
Gasoline tax	10.00	
Taxes on apartment	400.00	
Interest on mortgage, overhead, etc.	300.00	
Total deductible expenses		$ 7,800.00
Net income (gross income, less deductible expenses)		$ 7,200.00

Computations

Surtax net income (net income less personal exemption $7,200.00 less $2,500.00)	$4,800.00
Earned net income (earned income less business expenses, $12,000.00 less $7,000.00)	$5,000.00
Earned income credit (10% of earned net income, $5,000.00)	$ 500.00
Income subject to normal tax (net income less personal exemptions and earned income credit; $7,200.00 less $2,500.00 and $500.00)	$4,200.00
Normal tax (4% of $4,200.00)	$ 168.00
Income subject to surtax (surtax net income in excess of $4,000.00)	$ 700.00
Surtax (4% of $700.00)	28.00
Total tax (normal tax plus surtax)	$ 196.00

EXTENSION OF TIME FOR FILING RETURNS

Collectors of Internal Revenue are authorized to grant reasonable extensions of time for filing

income tax returns. Applications for extensions of time should be addressed to the collector for the district in which the physician files his return, and must contain a full recital of the causes for the delay. Except in the cases of taxpayers who are abroad, no extension for filing income tax returns may be granted for more than six months.

OHIO PERSONAL PROPERTY TAX

Returns under the Ohio Personal Property Tax Law must be made between February 15 and March 31, annually.

All tangible and intangible personal property (not real property) in possession of a physician on January 1, 1939, which is subject to taxation under the Ohio law, should be listed on the return which should be filed with the county auditor between those dates. Form 910 is used by individuals and partnerships, and Form 930 by corporations.

Such returns should be made in duplicate. The so-called intangible tax statutes are intricate and complicated so each physician having taxable personal property for listing should obtain competent advice in case of doubt as to the meaning of any of the provisions of the law.

One of the complicated provisions of the tax law is that involving the listing of credits which are taxable at 3 mills on the dollar and which involves the computation of accounts receivable.

As defined in Section 5327 of the law, credits "mean the excess of the sum of all current accounts receivable and prepaid items used in business when added together estimating every such account and item at its true value in money, over and above the sum of current accounts payable of the business, other than taxes and assessments.

The same section states that "current accounts include items receivable or payable on demand or within one year from the date of inception, however evidenced".

As the first step in making his return under the section relating to credits, a physician should estimate by his best judgment the Actual Value of his current accounts receivable—the amount that can probably be collected.

In listing his current accounts receivable, the physician should note after each account what he considers the value of the account. If he believes the account can be collected in full, it should be listed at its full face value. Otherwise, it should be listed at 75%, 50%, 25%, 10%, etc., of its full face value, or of "no value" in case that is considered the "actual value" of the account. The total of these estimates is the total to be entered as "current accounts receivable" and used in computing credits.

This procedure permits the physician to charge off bad debts since in his 1939 return he would be permitted to return as of "no value" accounts receivable which he listed in 1938 but no part of which was collected during the past year. Moreover, it permits a physician to depreciate the actual value of accounts returned in 1938 but which have decreased in actual value during the past year.

OLD AGE BENEFITS TAX

The Old Age Benefits Tax is payable by every physician who employs one or more persons in his office. It amounts to one per cent on the first $3,000 of each employee's wage paid by the employer and a like amount deducted from the wages of each employee. The tax return and informational return, combined in one report, Form SS-1-A, is to be filed quarterly. The tax must be paid and the return filed prior to April 30, for the months of January, February and March, 1939, in the office of the District Collector of Internal Revenue.

UNEMPLOYMENT COMPENSATION TAX

Under the Ohio Unemployment Compensation Law, physicians who employ three or more persons must file an "Employer's Contribution, Form UCO-2-E, Report," quarterly with the Unemployment Compensation Commission, Columbus. Report for the period of October 1 to December 31, 1938, was due January 31. The tax, which must accompany the return, amounts to 2.7 per cent of the quarterly payroll.

Employers of eight or more persons, under the Federal Unemployment Compensation Law, must have filed with the District Collector of Internal Revenue on Form No. 940, prior to January 31, 1939, a report of wages paid during 1938. The tax is 3 per cent, less a credit of the amount paid to the State Unemployment Compensation Commission. In other words, 90 per cent of the Unemployment Compensation Tax of employers of eight or more persons will be paid to the State and 10 per cent to the Federal Government.

Ohio Hospitals Approved

The Council on Medical Education and Hospitals of the American Medical Association has approved a number of hospitals since the publication of the last previous list in *The Journal of the A.M.A.*, July 23, 1938, issue. Included among the additional hospitals approved for residencies in specialties are the following in Ohio: Christ Hospital, Cincinnati, medicine, surgery; Glenville Hospital, Cleveland, mixed; Starling Loving University Hospital, Columbus, ophthalmology-otolaryngology, pathology; Lucas County General Hospital, Toledo, medicine, obstetrics-gynecology, surgery; Youngstown Hospital, Youngstown, medicine.

Reorganization of State Welfare Department Is Proposed

Reorganization of the State Department of Public Welfare is proposed in legislation which will be submitted to the Legislature by the present director of the department, Charles L. Sherwood.

The proposed plan, which follows recommendations made by the Sherrill Committee in 1935, calls for the establishment of four divisions, not for the purpose of adding new functions to the department, but to consolidate activities which the department has undertaken in recent years.

The first divison which the new director wishes to have established, by law, is that of business administration, which has been in existence since 1929 under executive order. Regular staff services would come under this division, and it would be headed by the assistant director, who would be in charge of the department's budgetary and financial activities.

The second division would be that of mental diseases, established at the last session of the Legislature, and now headed by Dr. J. F. Bateman. The proposed legislation would place the appointment of the chief of the division in the hands of the department head, and under civil service, instead of by the Governor.

Functions of state penal and reform institutions would be consolidated in a division of correction —the third division in the reorganization program.

The fourth division would be called the division of social administration, in which there would be established four bureaus: children's bureau, to take over the duties of the present Division of Charities; bureau for the handicapped to include vocational training and assistance in the marketing of products manufactured by the blind or otherwise physically handicapped; bureau of public assistance, under which would be placed the administration of the various phases of the social security program such as aid to the blind, crippled children, dependent children, and perhaps old age pensions and general relief; bureau of institutions, which would include the Girls' Industrial School at Delaware, Boys' Industrial School at Lancaster and the Bureau of Juvenile Research.

Dr. O. O. Fordyce, superintendent of the Toledo State Hosiptal, has been renamed by Governor Bricker as a member of the advisory council of the State Division of Mental Diseases. Dr. Fordyce's term expired January 1, and Governor Bricker reappointed him for a four-year term.

* * *

Sales tax collections for 1938 totaled $38,192,271 as compared with $48,820,420 the previous year, according to State Treasurer Don H. Ebright.

Sherwood Well Qualified to Direct Work of Welfare Department

Charles L. Sherwood, Fremont, is the new Director of the State Department of Public Welfare, having been appointed by Governor Bricker to succeed Mrs. Margaret M. Allman.



Chas. L. Sherwood

A former assistant director and fiscal supervisor of the department, during the administration of Governor Myers Y. Cooper, Sherwood is well qualified for this important Cabinet post.

In 1931, Sherwood became executive secretary of the Ohio Mental Hygiene Association, and during the same year was an Ohio member of the White House Conference on Child Welfare. His other activities in this field have included the chairmanship of a recodification committee appointed to re-write the welfare code of Ohio; supervision of the organization of 22 Ohio counties for the National Re-employment Service, and general consultant of the welfare sub-committee of the Sherrill Committee's survey of the state departments in 1935.

During 1934-1935 Sherwood was named by the treasurer of state as one of the supervisors in charge of sales tax division. For three years, commencing in 1936, he was on the staff of The Ohio Institute, (private agency devoted to governmental research) assigned to the general field of welfare and specifically to social security and relief.

During 1936 Sherwood also acted as secretary and field representative of the Ohio Council on Public Welfare, composed of Community Fund executives, city and county officials and professional groups. In this capacity he has discussed welfare administration before professional and business organizations throughout Ohio.

Sherwood also has acted as counsel in the preparation of legislation and in determining administrative practices for the Ohio Probation Association and the Ohio Probate Judges' Association. In addition to an intimate knowledge of the problems with which he will be confronted in the field of public welfare, Sherwood has a background of successful experience in private industry.

There are at least 117,000 totally blind persons in the United States, according to estimates of the National Health Survey recently made public by the U. S. Public Health Service.

HAVE YOU OBTAINED A SUPPLY OF THE ARTICLE, "WHAT EVERY CITIZEN OF OHIO SHOULD KNOW"? COPIES WILL BE SENT YOU FOR DISTRIBUTION, ON REQUEST

Do you remember the article, "What Every Citizen of Ohio Should Know: Do You Want Your Own Doctor or the 'State Doctor' ", published on page 75 of the January, 1939, issue of *The Ohio State Medical Journal?*

Do you remember that *The Journal* offered to send reprints of the article to members, on request, for distribution to patients or for reception room tables?

Have you taken advantage of this offer and this opportunity to educate the public about some of the evils of bureaucratic, governmental medicine?

If you haven't, why don't you have the Columbus office send you a supply?

An unlimited supply of these effective dodgers is available for distribution. Thousands have been sent to members for distribution. There are thousands more on hand. Too few members have asked for them.

It is the obligation of every member of the Ohio State Medical Association to get a supply of these reprints and put them into circulation. If the physicians of Ohio don't tell Ohioans about the evils of regimented medical service, who will? Do your bit by getting some of these reprints and distributing them. Those who have obtained a supply of the leaflets may get additional copies by writing the Columbus office.

Dr. Dawson New Orthopedist on Staff of Industrial Commission

Dr. Clyde W. Dawson, Columbus, has been appointed orthopedist in the Medical Section of the State Industrial Commission. A graduate of Ohio State University College of Medicine in 1929, Dr. Dawson served his internship at Miami Valley Hospital, Dayton, was in private practice at Yellow Springs from 1930 to 1934. Following a year as resident in surgery at the New York Postgraduate Medical School, Reconstruction Unit, Dr. Dawson was house physician in orthopedic surgery at the Children's Hospital and Massachusetts General Hospital, Boston, under the direction of Harvard University Medical School, for two years. This training included eight months in orthopedic pathology. From August, 1937, to September, 1938, Dr. Dawson was resident in orthopedic surgery at Children's Hospital, Boston, and assistant in the Department of Orthopedic Surgery at Harvard University Medical School. He then entered private practice in Columbus, limited to his specialty. Dr. Dawson is on the attending staffs at University, Children's, Mt. Carmel and Grant hospitals, Columbus; is instructor in orthopedic surgery at Ohio State University College of Medicine and is a member of the Columbus Academy of Medicine, the Ohio State Medical Association and the American Medical Association.

Hospital Administrators Frown On Expansive Building Program

At the recent meeting of the American College of Hospital Administrators in Dallas, Texas, the following resolution was adopted relative to the hospital expansion program advocated at the National Health Conference held at Washington, D.C., July 18-20, 1938:

"The American College of Hospital Administrators is appreciative of the interest of the Federal Government in hospital service as expressed in the recommendations offered at the recent National Health Conference.

"It approves of the extension of hospital facilities where needed, but cautions against the building of new institutions or adding to present institutions without an exhaustive survey of local needs.

"It approves of financial assistance by government for the hospitalization of the indigent sick, if such assistance is based on the actual cost of rendering hospital service.

"It recommends that no program of compulsory hospital insurance be considered until voluntary hospital insurance plans have had a thorough trial."

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

F. D. R. Sends Health Report To Congress Without Recommendation

On January 23, while this issue of *The Journal* was being made ready for the press, President Roosevelt transmitted to the United States Congress a draft of the recommendations for a huge national health program formulated by the Technical Committee on Medical Care of the Interdepartmental Committee to Coordinate Health and Welfare Activities of the Federal Government. This report was summarized in the September, 1938, issue of *The Journal*, pages 1031-1035, and has been discussed on several occasions in subsequent issues.

We have not had an opportunity to read a verbatim draft of the President's message. If the newspapers reported the text of the message accurately, Mr. Roosevelt recommended that the Congress study the report carefully **but did not ask specifically for adoption of any detail of the plan.**

According to the Associated Press, the President "did not discuss in detail any of the recommendations made by the committee and **avoided any mention of the compulsory health insurance program".**

Obviously, it is too early to make predictions relative to the outcome of the national health program proposals. Nevertheless, it is conceivable that the prophecy made recently by one medical journal following a careful check-up at Washington, "that national health insurance is at least two years away", may prove to be quite accurate.

Assuming that only some of the major recommendations submitted by the President's technical committee are enacted at this session of the Congress and assuming that the real show-down on controversial measures will come during the 1940 campaign and in 1941, wouldn't it be wise for the medical profession to begin right now to get ready for the impending battle?

In other words, wouldn't it be wise for the Ohio State Medical Association to inaugurate its expansion program, at the earliest possible date, so that a real public relations campaign can be initiated? Wouldn't it be advisable for the membership to get on its toes and take an active interest in this situation? Wouldn't it be sound logic for each member to realize right now that a nominal financial investment in this undertaking, through a small increase in annual dues, may pay large dividends at a later date? **Now is the time for the medical profession to advance—not retreat.**

Now is the Time to Fight and Build, Not Quit and Cry

The other day we heard about a conversation between two members of the State Association which indicates rather clearly why some physicians succeed, others fail; why the medical profession as a unit, with all its potentialities, does not wield as much influence in molding public opinion as it should; why others are taking the lead in fields in which the medical profession should be the leader.

It seems as if the two members were discussing the proposed expansion program for the Ohio State Medical Association, so ably analyzed in the January issue of *The Journal*, pages 77-81, by Dr. Hein, the President. One member was all for the program and the nominal increase in annual dues which it will entail. The other, with much cynicism, denounced the proposal. Said he: "What's the use. We're going to be taken over by the government, anyway. What has medical organization accomplished and what good can it be to us in the future?"

For any member of the medical profession to manifest a defeatist spirit at this time is, in our opinion, unfortunate, to put it mildly. Surely, such a spirit does not typify that which was possessed by the pioneers in medicine! Certainly, the future of medicine would be sad indeed, if such a spirit prevailed among the majority of the profession!

We are convinced that the great majority of the medical profession are not ready to throw in the sponge and become quitters. We believe that the great majority of the medical profession appreciate the many good things which have been accomplished through the pooling of resources and united action typified by medical organization. We feel that the great majority of the medical profession realize that in numbers and unity there is strength and that the profession cannot hope to hold its own, let alone advance, unless it keeps its organization modernized and strong enough to cope with the ever-increasing number of new problems and situations confronting physicians everywhere.

The successful physician did not acquire success by quitting in the midst of an emergency or

by admitting defeat before the battle was over. The medical profession as a whole has not caused a glorious record to be spread upon the pages of history by buckling in the middle every time a crisis appeared. Medical organization through the decades has not shut up shop every time somebody said "boo" or when the going got pretty tough, but has taken another foothold, rallied its forces and pressed forward with renewed energy.

That is the spirit which must prevail within the Ohio State Medical Association now. Because it believes that spirit does prevail, The Council has proposed a forward-looking program that will enable the Association to provide greater security for its individual members and to speak with more authority on questions affecting the health and medical needs of the citizens of Ohio. Whether or not they want such a program and are willing to support it financially and morally is a question which the members of the State Association must decide.

Plight of Physician Not So Bad After All, Writer States

Refreshing, to say the least, is the philosophy expressed in an editorial in the January issue of *The Bulletin of the Cleveland Academy of* Medicine, entitled "Count Your Blessings!"

Admitting that in these days of uncertainty, the plight of the physician is none too easy and that the pastures on the other side of the fence seem greener, we are inclined to agree with the writer of the following, that with all his trials and tribulations, the modern physician has much to be thankful for and should not work himself into a fit of discouragement over trivialties:

"Do you ever complain of working hard, of fatigue from the actual physical exertion used in carrying out your program of the day?

"Certainly modernism has given much leisure to doctors. We hear often of the large and active practices of the physicians of the last generation and those preceding it. No doubt they were busy men; but it is safe to wager they would have been only a fraction as busy as far as their time was concerned, if they had our current aids.

"The matter of transportation is obvious, probably, first of all. Think of the hours the old doctors spent on the roads, where we spend minutes. It was not unusual for a busy practitioner of those days to spend eight to ten hours of the twenty-four, merely in being carried from call to call. Think of the deep snow of the country, and the horse plowing through it, and of the almost impassable mud of the spring 'break-up.'

Again, there is the improvement in diagnostic aids. With modern equipment, one examination of the patient will often give us the diagnosis, whereas the older doctor had to repeat his observations many times, before making up his mind.

"We must not forget that the attitude of the sick person has changed greatly. In the last century hospitals were often regarded as places of last resort. Many persons refused completely to go to them and preferred to be operatd upon (if they granted permission at all) on the kitchen table, in spite of the great amount of time and energy necessarily expended in setting the stage and performing the operation under difficulties. Today even in the smaller centers, patients are willing, even desirous, of going to the hospital for such innocent purposes as thorough examination and study of their ailments. Suppose one tried to complete a case study at home. Can you imagine the amount of time the doctor would spend in running about on one errand or another?

"So we say, whereas there are more doctors, there are also more patients. We do as much work as we did in the past, but do it far more easily. If we are fatigued at the end of the day, it is not the result of a small amount of work done under difficulty, but of a volume of work which the doctor of the old school could not possibly have surmounted with his limited facilities.

"Let us be thankful and count our blessings."

While Operating, the Surgeon is Legal Agent of Patient

Every physician knows that he is obligated legally and morally, to use due care, skill and judgment while treating a patient.

What every physician may not know is that while treating a patient under anesthetic he becomes the legal representative of the patient and his judgment must be respected—at least that is the interpretation given by the Supreme Court of New Jersey.

This interesting decision was handed down in a suit for $50,000 (Hanig vs. Orten) instituted by a Maplewood father against a physician for failure to continue a throat operation on his daughter. The physician, in defense, stated that during the operation he discovered a condition of pneumonia and abandoned the operation in the interests of the child. The child continued under the physician's care for some time but subsequently was removed from his care, although he had indicated a willingness to undertake another operation.

Supreme Court Justice Thomas W. Trenchard, who wrote the opinion sustaining the lower courts in dismissing the suit on the ground that the physician had acted properly, said:

"Where, as here, the duly authorized representative of an injured patient has selected a surgeon to perform an operation under an anesthesia, and has appointed no other person to represent her during the period of unconsciousness, the law by implication constitutes the surgeon the representative of his patient and will cast upon him the responsibility of so acting in her interests that she shall receive the full benefit of his professional judgment and skill to which she is entitled; and this implication, which protects the surgeon while acting within its scope, places no duty upon him to perform an operation that involves risks or results of a kind not contemplated."

This, in our opinion, is another example of the important responsibility which the physician as-

sumes when he accepts a patient for treatment, especially when the patient cannot be consulted for the purpose of sustaining the judgment of the physician on unexpected events arising during the course of treatment or operation.

Some Good Tips for Physician on Public Speaking

In browsing through *The Brown Book*, sales promotion publication of The Brown Publishing Company, Blanchester, we ran across some tips on public speaking which seem very timely in view of the fact that an increasing number of physicians are being invited to speak before lay groups.

A sales manager of a national organization who has achieved quite a reputation as a luncheon club speaker was asked how he did it. Here are his suggestions:

"Just as I formulate definite rules and policies for our salesmen to follow, I make a set of principles which I review the day before I am scheduled to make a talk:

"1. Always know in advance what you are going to say. Avoid nervous habits such as rubbing the chin, fingering the buttons of your coat, etc.

"2. Pause a moment before beginning to talk after you get on your feet. A short purposeful silence always gets attention . . . it gives the audience a chance to compose itself.

"3. Speak slowly and distinctly—articulate each word—pronounce each syllable correctly. Do not speak too loudly at first . . cultivate the easy but firm delivery.

"4. Talk to your audience in the back of the room—not to the men near you.

"5. Be yourself—don't pose—show by your manner that you know your subject.

"6. Avoid unnecessary repetition. Quote a few facts and figures . . . they serve to give your words the weight of authority.

"7. Loosen up—practice a few gestures . . . not too many—to give emphasis to your delivery.

"8. Use dramatic pauses. A pause in the right place is eloquence. It focuses attention and crystallizes interest.

"9. Develop a variety of tempo. Don't drone or have a sing-song delivery. Give inflection to important thoughts and sentences.

"10. Finish vigorously. Hold up the last sentence and when you have finished, pause a moment, bow slighly . . . don't say 'thank you' . . . just quit and sit down.

"11. Allow yourself plenty of time before the date of your address to build up your talk. Jot down all the points you want to cover and arrange them in proper sequence.

"Remember public speaking is just like making a sales talk to an individual. You must get from three to five affirmative answers before reaching your climax.

"In other words, arrange your talk to get your audience to agree with you—quoting a few facts or figures that your audience knows to be correct will accomplish this.

"After I have assembled my points to be covered, I build up a skeleton something like this:

"1. Introduction. A word or two of local interest—reference to previous speakers or tactfully complimenting the audience.

"2. Tell a story if I have a good one—otherwise this is omitted.

"4. Argument or opinions.

"5. Climax—put over vigorously with gesture and emphasis in the voice.

"6. Conclusion or summary if necessary. Usually it is best to quit at the end of the climax.

"I always avoid reading my manuscript . . . it is monotonous and boring to the average listener.

"If I have a story that is appropriate, I tell it. But I don't attempt to be funny. Earnestness, dignity, poise are far more valuable to a speaker delivering a business talk than attempting to be a humorist."

In our opinion, any member of the Ohio State Medical Association who will adhere to the above suggestions and use the speech outline, "Compulsory Health Insurance Is Not the Answer", which he received with his 1939 membership card, can ring the bell at any meeting.

Here's "Model" Plan To Meet Needs of Hard-of-Hearing Pupils

Some months ago the Sub-Committee on Public Health Education in an article in *The Journal*, pointed out the desirability for close cooperation between the medical profession and school authorities on matters pertaining to the health and medical needs of school children. It was suggested at that time that greater interest should be shown by both groups in the matter of programs dealing with hard-of-hearing pupils.

Recently, a Sub-Committee of the Public Health Committee of the Cleveland Academy of Medicine drafted a series of recommendations, which if carried out will make such a program a reality in that city.

The recommendations, which follow, might well serve as a guide for similar activity in all counties, to a lesser degree of course in communities where the situation may not be as large as it is in Cleveland:

I. Under the auspices of the sub-committee of the Committee on Public Health, and with the cooperation of all school health services in the county, an Annual Hearing Survey shall be urged for all schools in the county on the following basis:

(a) Every year the eight and nine year pupils shall be examined by a phonographic audiometer under the direction of an otologist (M.D.) with trained assistants.

(b) Pupils thus examined, who are thought to have defective hearing in one or both

NAMES OF PHYSICIANS DELINQUENT IN THE PAYMENT OF ANNUAL DUES WILL BE REMOVED FROM MAILING LIST OF THE JOURNAL AFTER THIS ISSUE; PAY NOW!

To comply with United States Postal Laws and the provisions of the Constitution and By-Laws of the Ohio State Medical Association, *The Journal* will be compelled to remove from its mailing list after this issue, the names of all former members whose 1939 dues have not been received at the Columbus Headquarters Office.

As soon as a physician's 1939 dues are received at the Columbus office his name will be returned to the mailing list of *The Journal* and he will be reinstated on the membership rolls of the State Association.

If you have not paid your 1939 dues, see the Secretary-Treasurer of your County Medical Society at once. Pay your dues to him now so he can forward them to Columbus and your name can be restored to *The Journal* mailing list and the membership roster.

Don't overlook this important matter. You can't afford to be without *The Journal* and, of course, membership in your County Medical Society, the State Association and A.M.A. is indispensable to every reputable physician.

ears, are to be examined personally by the otologist who will recommend as follows:

1. Special placement in regular classrooms.
2. Referral to lip-reading classes.
3. Referral to the Alexander Graham Bell School for special instruction (cases which cannot be handled in regular classrooms).
4. Referral to family physicians of all cases with remedial defects.

II. Authorization for the proper Academy committee to meet with the heads of all school services in the county for development of this program.

III. A program of public education to be engaged in by the Academy looking toward support of this program.

Program for Low-Wage Group Should Be First on the Agenda

Those who scoff at the efforts being made by The Council of the Ohio State Medical Association through its Coordinating Committee to provide programs of medical service on a prepayment basis for the low income group and similar efforts which have been inaugurated by the medical profession in other states are rapidly becoming a minority.

Everything indicates that the medical profession has awakened to its responsibility in designing some plan or plans which will assist the average citizen in meeting the costs of illness and that the initiative taken by the profession is meeting with popular approval.

A report released on January 22 by the Institute of Public Opinion reveals that millions of citizens are definitely interested in voluntary health insurance, something which the medical profession is endeavoring to provide for them under the control and supervision of the medical profession, not bureaucrats and politicians.

Here is what the Institute reported after a nation-wide cross section survey:

"Millions of Americans are interested in a new system of paying the doctor and the hospital—the system of voluntary health insurance.

"The institute's study, which comes after months of debate on the merits of health insurance by physicians, medical economists and government officials, indicates that approximately 25,000,000 persons would be interested in paying as much as $3 a month for complete hospital protection.

"This is a figure which many economists believe would be 'the top' for guaranteed medical care. Some existing insurance plans are providing such care for as little as $2 a month.

"If the cost were limited to this latter figure, the institute survey indicates that approximately 32,000,000 persons would be interested in taking advantage of the plan.

"The results of the institute survey are especially significant in view of a plan announced by Senator Robert M. Wagner (D.) of New York, to introduce a major national health measure in the present session of Congress. Senator Wagner, who is the author of the Social Security Act, is expected to ask for a general health program

including arrangements for voluntary health insurance.

"After a year of controversy the American Medical Association, most important group representing the nation's physicians, has indicated it will offer no opposition to health insurance as long as it is voluntary and not compulsory, as it is in some Europeon countries.

"The institute survey indicates that the bulk of the potential customers for medical and hospital insurance come from the upper and middle economic groups. They come, in other words, from those earning at least $20 a week.

"But a large group of Americans in the lower income group earn less than this figure, and their replies show that many of them are not likely to be reached by ordinary voluntary health insurance plans. Many of those interviewed in the lower income group in today's survey say that 'the cost is still too high' or that they could only afford to pay $2 or $3 a month 'if the whole family can be included for that.'

"The survey shows that the largest proportions of persons willing to pay for medical insurance are to be found in the east—in states like New York, Pennsylvania, New Jersey and Maryland—and in the middle west."

There are two points which must be kept in mind:

1. Unless the profession follows through and gives the low wage earner some program whereby he can finance the costs of sickness without excessive hardship, government will be compelled through public appeal to step into the picture.

2. Those within the profession who believe that the solution can be accomplished overnight should bridle their enthusiasm. It can't be done. There must be careful planning and some experimentation. That is the method which is being followed in Ohio. Now is no time for fatal mistakes. Great good will come from the study and research which has been done by the Coordinating Committee provided care is taken in building the super-structure. Let those who are restless beware of haste and poorly designed programs.

Poverty Breeds Crime; Also, It is Cause of Many Health Problems

A month ago at a meeting of the American Association for the Advancement of Science at Richmond, Virginia, Dr. Paul L. Schroeder, director of the Institute of Juvenile Research, Chicago, charged that city slums are primarily responsible for many of our present-day criminals, who are the offspring of adults who have been forced through economic limitations to live meagerly and who bear a strong resentment against the more favored families.

Obviously, Dr. Schroeder said nothing which every thinking person does not know. His statement is referred to here because it so closely parallels a statement which has been made so many times by members of the medical profession with respect to the present agitation for drastic improvements in present medical and public health programs.

In other words when Dr. Schroeder declared that many people attempt to treat juvenile delinquency on an emotional basis whereas it is actually an economic problem, he put his finger on the crux of many existing problems for which improper therapeutic measures have been instituted.

It is quite logical to assume that crime can be decreased and the breeding of potential criminals retarded if proper measures to abolish or clean up city slums are carried out. By the same token, it can be argued that many of the medical and health problems of the nation can be solved if economic conditions can be improved, making it possible for all to have proper food, clothing, shelter, and environment which are essential factors in good health, and a sufficient income from which medical services, when needed, can be financed.

Utopia never will be reached in the war on crime. Neither will it be reached in the war on disease and sickness. However, it is about time that a realistic approach to all such problems be started. Underlying all of them will be found the one factor: Economic maladjustment.

Same Old Kind of Osteopathic Bill Before Assembly

Ever since the State of Ohio began the licensing of graduates of osteopathic schools, practicing osteopaths have been trying through proposed legislation to have the legal restrictions which the Ohio Legislature properly placed on practitioners of this school of practice, removed. In other words, they have been trying to have themselves legislated into the unrestricted practice of medicine and to a parity with doctors of medicine.

Every time the General Assembly meets in regular session, an osteopathic bill is dumped into the hopper. The 1939 session of the Legislature will be no exception. The osteopathic bill —House Bill 72—made its bow in mid-January. Basically, it is the same as previous proposals sponsored by the osteopaths and which have been defeated by the General Assembly—it would grant osteopaths the right to practice medicine.

Last Fall, at the request of the state osteopathic society, the Committee on Public Relations and Economics of the State Medical Association met with a committee of the osteopathic society to discuss proposed osteopathic legislation. The Committee on Public Relations and Economics in accepting the invitation for a conference, did so with a hope that perhaps some solution to the biennial conflict over proposed

osteopathic legislation might be forthcoming. No understanding could be reached, so the question once again goes before the Legislature for adjudication. If the decision duplicates that of previous General Assemblies, House Bill 72 will still be House Bill 72 when the 93rd General Assembly adjourns.

Ohio wants no double standard of medical practice. Graduates of osteopathic schools who are qualified, now may obtain a license in Ohio to practice osteopathy, that method of healing for which they are trained. They have not been trained to practice medicine and therefore should not be granted the legal right to practice medicine. Their practice should be limited to osteopathy as under the present law.

In the interests of public health and sound public policy, House Bill 72 should be defeated. Advise the members of the Legislature from your county that this would be the proper course to pursue.

State Laboratories Offer Service In Making Dark-Field Examinations

The Laboratories of the State Department of Health have announced an additional service in cooperation with the venereal disease program. This newer service pertains to the dark-field examination of specimens for spirochaeta pallida. Careful studies of specimens when properly collected and transferred to mailing containers have shown that these organisms retain their original morphological characteristics for sometime after the material is taken from the patient.

This method of detecting syphilis is recommended by the laboratories as the test of first choice as a weapon in the eradication of the disease.

Physicians are urged to become familiar with the technic of taking specimens, and to utilize the service whenever possible. The laboratory outfits consist of three small capillary pipettes, and instructions for collecting the serum are included. Special attention must be given to the directions in order to obtain reliable microscopical results. The containers may be procured from the city or county health department, depending upon the respective residence of the patients.

Butler County Plans Dinner Meeting

Physicians of surrounding counties are cordially invited to a dinner meeting of the Butler County Medical Society to be held at the Elks' Club, Hamilton, Wednesday evening, February 8, at 6:30 p. m. Dr. Parke G. Smith, Cincinnati, President-Elect of the Ohio State Medical Association will speak on "The Present Medical Care of the Low-Income Group". Other speakers will include Charles S. Nelson, Columbus, Executive Secretary of the Association.

Postgraduate Course of Cleveland Academy Now Under Way

The Annual Postgraduate Course of the Cleveland Academy of Medicine, devoted to practical lectures on current medical problems, opened Monday, January 16, with an address by Dr. A. T. Steegmann on "Physical Therapy; Its Use and Misuse". The lectures are held on Monday afternoons at 5 o'clock, in the Medical Library Auditorium, 2009 Adelbert Road.

Other lectures during January were: January 23—"Backache and Its Treatment", by Dr. W. S. Duncan; January 30—"The Ailing Foot and Its Treatment", by Dr. W. H. McGraw.

The program for the remainder of the course follows:

Feb. 6. "The Role of Vitamin A, C and D in Medicine", Dr. H. J. Gerstenberger.

Feb. 13. "Unravelling the B Complex", Dr. Paul Gyorgy.

Feb. 20. "The Common Psychoses; Their Diagnosis and Management", Dr. L. J. Karnosh.

Feb. 27. "Endocrine Problems in Childhood", Dr. C. E. Zeithaml.

March 6. "Treatment of Disorders of the Thyroid", Dr. C. L. Hudson.

March 13. "Treatment of the Menopause", Dr. E. E. Beard.

March 20. "Clinical Management of Testicular Deficiencies", Dr. E. P. McCullagh.

The Committee in charge of the Postgraduate Course consists of Dr. R. O. Egeberg, chairman; Dr. W. T. Bennie and Dr. John Kelker.

Coming Meetings

Ohio State Medical Association, Toledo, May 3-4.

American Medical Association, St. Louis, May 15-19.

American Academy of Orthopedic Surgeons, Memphis, Jan. 15-19.

American Association for the Study of Goiter, Cincinnati, May 22-24.

American College of Physicians, New Orleans, March 27-31.

American Congress of Obstetrics and Gynecology. Cleveland, Sept. 11-15.

American Society of Anesthetists, New York, Feb. 10.

Annual Congress on Medical Education and Licensure, Chicago, Feb. 13-14.

International College of Surgeons, New York, May 22-24.

Licenses Granted 64 Medical School Graduates at Meeting of State Board On January 17

LICENSES to practice medicine and surgery in Ohio were granted 45 medical school graduates who passed the December examinations, at a meeting of the State Medical Board at Columbus on January 17. Licenses were also granted through reciprocity to 19 physicians who have been practicing in other states.

The board also granted certificates to 1 osteopath, 5 chiropractors, 7 mechano-therapists, 5 chiropodists, 2 cosmetic-therapists, 1 electro-therapists and 10 masseurs.

Of the 19 citizens of foreign countries who took the examinations to practice medicine and surgery, five failed. There was one other failure in this examination, and the following number of failures in the other branches: 3 osteopaths, 5 chiropractors, 12 mechano-therapists, 21 masseurs and 5 naprapaths.

The certificate of George Wm. Thompson, Cleveland, to practice electro-therapy and chiropractic, was revoked because of grossly unprofessional and dishonest conduct and violation of the rules and regulations governing limited practitioners.

The following officers were elected by the Board for the ensuing year: Dr. L. T. Franklin, Chillicothe, president; Dr. J. H. J. Upham, Columbus, vice-president; Dr. H. M. Platter, Columbus, secretary; Dr. Lee Humphrey, Malta, treasurer. Professor S. E. Razor and Miss Clara F. Brouse, were re-appointed entrance examiner and chief nurse examiner, respectively.

The highest grade in the examinations to practice medicine and surgery was made by Dr. E. E. Judd, Wooster, a graduate of McGill University, and Dr. E. C. Heyde, Loudonville, a graduate of Johns Hopkins University, who tied with grades of 88.6 per cent each. Dr. R. G. Lehman, Dayton, graduate of Hahnemann Medical College, was second with 87.8 per cent, and Dr. R. J. Anzinger, Springfield, graduate of Jefferson Medical College, third with 87.6 per cent.

Those granted medical and surgical licenses following examination were:

Lucy Swanton, Cleveland, George Washington University; Norman E. Basinger, Elyria, James R. Bone, Chillicothe, Earl H. Kirk, Cleveland, Robert G. Lehman, Dayton, Ralph H. Leyrer, Hamilton, Rosario G. Mannino, Cleveland, Malcolm E. Walker, Cleveland, Hahnemann Medical College; Wm. C. Weir, Cleveland, Harvard Medical School; Robert J. Anzinger, Cincinnati, Jefferson Medical College; Edward C. Heyde, Loudonville, Frederick L. Santee, Gambier, Johns Hopkins University; Jerome J. Maggiore, Canton, John J. Scuderi, Akron, Loyola Medical School; James H. Cooper, Wauseon, John W. Erkert, Toledo, Henry H. Roenigk, Cleveland, Franklin L. Shively, Jr., Dayton, Northwestern University; Hudson D. Fowler, II, Cleveland, Edward F. Hardman, Youngstown, James K. Ross, Cleveland, Temple University; Hal E. Freeman, Cleveland, Frank D. Novy, Cleveland, University of Louisville; Morris B. Martin, Springfield, Norman E. Wentsler, Akron, University of Pennsylvania; Dwight E. Clark, Canton, University of Rochester; Ebert E. Judd, Wooster, McGill University, Montreal, Quebec, Canada; Franklin C. Kunz, Akron, University of Western Ontario, London, Ontario, Canada; Max Sternlieb, Cleveland, Carl Franzens University, Graz, Austria; Harry Geisler, Sandusky, Marianne Geisler, Sandusky, Curt Kayser, Cleveland, Lucia Michaelis, Cincinnati, Friedrich Wilhelm University, Berlin, Germany; Roland A. Brown, Massillon, Royal College of Surgeons, Edinburgh, Scotland; Allan H. Driels, New York, Hans Liebermann, Cleveland, Felix Mottek, Cleveland, University of Breslau, Breslau, Germany; Lester J. Kantor, Milan, Michigan, University of Brussels, Brussels, Belgium; Paul C. Rosenberg, Cincinnati, University of Gottingen, Gottingen, Prussia; Max Kastan, Cincinnati, University of Heidelberg, Heidelberg, Baden, Germany; Ludwig O. R. Plaut, Cincinnati, University of Leipzig, Leipzig, Germany; Martin Calvary, Cincinnati, University of Munich, Munich, Bavaria, Germany; Albert Brownstone, Cleveland, University of Prague, Prague, Czechoslovakia; Dezso Levendula, Cleveland, University of Vienna, Vienna, Austria; Maria Zatorska, Toledo, University of Warsaw, Warsaw, Poland.

The Board granted licenses to practice medicine and surgery, through reciprocity with other states, to the following physicians:

Basil D. Anagnost, Toledo, University of Michigan; Henry Bachmann, McConnelsville, University of Florence; Charles W. Consolo, Bellevue, St. Louis University; Carl T. Doeing, Springfield, Loyola University; Harrison D. Goehring, Cleveland, University of Pittsburgh; Roscoe J. Kennedy, Cleveland, State University of Iowa; Joseph C. LaValee, Cincinnati, Syracuse University; H. Ruth Merrell, Massillon, Woman's Medical College; Robert O. Page, Newark, Syracuse University; Anthony F. Piraino, Cleveland, Washington University; Edward J. Purchla, Toledo, Loyola University; Robert E. Quinn, Chillicothe, University of Wisconsin; James R. Raines, Warrensville, University of Oklahoma; Robert J. F. Renshaw, Cleveland, University of Oregon; James E. Ryan, Kelleys Island, University of Louisville; Eugene H. Sterne, Jr., Cincinnati, Harvard Medical School; Richard J. Stevens, Cincinnati, Rush Medical College; Maximilian H. Weinberg, Cleveland, University of Pittsburgh; Wayne A. Yoakam, Homer, Harvard Medical School.

The appointment of Dr. Lee Humphrey, Malta, as a member of the State Medical Board for a term expiring March 18, 1945, was confirmed by the State Senate during its special session, December 31. Dr. Humphrey was appointed to the Board by Governor Judson Harmon in 1910, and has served on the Board ever since.

Meet the State Medical Board!



The above photograph was taken during a session of the State Medical Board at Columbus, January 17. Reading from left to right: Dr. H. M. Platter, Columbus, secretary; Dr. Lee Humphrey, Malta; Dr. R. C. Hunter, Wapakoneta; Dr. C. W. Dewey, Conneaut; C. R. Frank, assistant attorney-general; Dr. Floyd S. Meck, Cleveland; Dr. J. H. J. Upham, Columbus; Dr. C. W. Waggoner, Toledo; Dr. L. T. Franklin, Chillicothe.

Northwest Regional Medical Meeting in Chicago on February 12

All physicians interested are invited to attend the Annual Northwest Regional Conference, comprising officers and committee members of Northwest and Central State Medical Associations, which will be held at the Palmer House, Chicago, Sunday, February 12. This conference is one day in advance of the Annual Congress on Medical Education and Licensure which meets at the Palmer House on February 13 and 14.

An interesting program is being arranged. Some of the topics to be discussed are: "State-Wide Group Hospitalization Plans"; "Supplementary Arrangements for Medical Care"; "The National Health Conference"; "The Physician's Role in a Public Health Program"; "Middletown Modernizes Medicine". Breakfast will be served in Room 18 at the Palmer House, at 8:30 A.M. The official program will begin at 10:00 A.M. in the Red Lacquer Room. A copy of the complete program can be obtained by writing Dr. Carl F. Vohs, President, Northwestern Regional Conference, 623 Missouri Building, St. Louis, Mo.

Accident Death Rate Declines 10 Per Cent During 1938

Eleven thousand fewer people were killed in accidents of all kinds in the United States in 1938 than in 1937—a decline of more than 10 per cent, according to a recent issue of the *Statistical Bulletin* of the Metropolitan Life Insurance Company. Present indications are that the number of deaths resulting from accidental injuries will run around 95,000 in 1938, which figure compares with 106,000 deaths, approximately, in 1937, and with 110,000 deaths, the all-time high figure, in 1936. The 1938 loss was the lowest since the deep depression years of 1932 and 1933, when the number of deaths totaled 89,000 and 91,000 respectively.

One characteristic of the 1938 record is a very substantial decline in the number of motor vehicle fatalities—a decrease of about 8,000, or from about 40,000 in 1937 to between 31,000 and 32,000 in 1938. Final records will probably show that home accident deaths during 1938 exceeded in number those resulting from motor vehicle accidents.

Do You Know - - -

Dr. Jonathan Forman, Columbus, editor of *The Ohio State Medical Journal*, is the new president of the Phi Rho Sigma Fraternity. Other officers include Dr. Ralph W. Elliott, Cleveland, secretary-treasurer.

* * *

Blood tests of 78,388 undergraduates in more than 500 American colleges and universities indicated that 2 out of every 1,000 students examined are infected with syphilis, according to a recent report issued by the American Social Hygiene Association.

* * *

The magazine, *Time*, named Dr. Marion A. Blankenhorn and Dr. Tom D. Spies of the University of Cincinnati College of Medicine and Dr. William Clark Cooper, Waterloo, Iowa, a former research assistant there, as the three men of the year 1938 outstanding in science, in recognition of their discovery of nicotinic acid as a cure for pellagra.

* * *

A testimonial luncheon was given Dr. Sterling B. Taylor, Columbus, January 4, on the occasion of his retirement as local surgeon-general for the New York Central Lines.

* * *

Authorization of $5,000,000 as an initial fund for federal grants to states, to be matched in part by state funds, for a nation-wide tuberculosis hospitalization program, is proposed in a bill introduced in the U. S. Senate by Senator Murray, Montana.

* * *

Dr. D. M. Denman and Dr. L. M. Denman, brothers who have practiced in Cincinnati for more than 55 years, were presented with a 50-year Masonic medal and a 50-year gold life membership card at a recent meeting of Kilwinning Lodge, No. 356, F. and A. M.

* * *

M. N. Ford, secretary of the State Board of Pharmacy for 26 years, and replaced by Thomas J. Ryan during the last administration, has been reappointed to his former post.

* * *

A summary of the Ohio State Medical Association's state-wide report on the American Medical Association's Survey of Medical Care appeared on pages 243-246 of the Organization Section of the January 21 issue of *The Journal of the A.M.A.*

* * *

Dr. Ralph B. Brown was named to a four-year term on the state Board of Cosmetology late in December by Governor Davey.

Grants for scientific research in infantile paralysis by the National Foundation for Infantile Paralysis include $3,060 to Ohio State University College of Medicine and $4,800 to Western Reserve University School of Medicine.

* * *

Dr. Enrico Ei Iorio, Youngstown, and Dr. Joseph S. Podesta, Cincinnati, were recently designated by King Victor Emmanuel of Italy as knights of the Order of the Royal Crown.

* * *

Dr. George Burgess Magrath, emeritus professor of legal medicine, Harvard University Medical School, Boston, Mass., well known for his writings and lectures on forensic medicine, died December 10, 1938.

* * *

Dr. Francis P. Corrigan, Cleveland, minister to Panama, has been appointed by President Roosevelt as the first United States Ambassador to Venezuela.

* * *

"Typhoid Mary" Mallon, a carrier of virulent typhoid bacilli, who caused a series of typhoid epidemics in Weschester and Long Island, New York, early in the century, recently died on North Brother Island on East River, where she had been detained since 1910.

* * *

During the first two days of the 76th Congress, 2,183 bills and resolutions were introduced —six a minute.

* * *

Dr. John R. Neal, Springfield, Illinois, has been appointed dean of the Cook County Graduate School of Medicine, Chicago, Ill.

* * *

According to Newsweek, a special committee of the Central Statistical Board recently reported to President Roosevelt that individuals and business firms were required by Federal agencies to fill out 135,500,000 forms and questionnaires in 1937.

* * *

Dr. Norbert A. Wilhelm, a native of Norwalk, is the new superintendent of Peter Bent Brigham Hospital, Boston. A graduate of St. Louis University School of Medicine in 1925, Dr. Wilhelm served his internship at Mercy Hospital, Toledo, and was resident physician at Lucas County Hospital.

* * *

Approximately 50,000 square feet of exhibit space has been assigned to accommodate medical exhibits in the Hall of Science of the Golden Gate International Exposition to be held on San Francisco Bay.

Hotel Reservations for 1939 Annual Meeting at Toledo Should Be Made Immediately; Names and Data Listed

MEMBERS of the Ohio State Medical Association who are planning to attend the Ninety-Third Annual Meeting at Toledo, Wednesday and Thursday, May 3 and 4, 1939, should make hotel reservations promptly.

The Commodore Perry Hotel, where the Registration Headquarters and Technical Exhibit will be located, has been designated as the headquarters hotel. Most of the scientific sessions will be held there, as well as the meetings of the House of Delegates. One or more section meetings may be held at the Hotel Secor, which is located directly across the street from the Commodore Perry Hotel.

While hotel accommodations in Toledo are ample for the meeting, desired accommodations can best be secured by making requests for reservations early.

Such requests should be made directly to the hotel selected.

Following is a list of Toledo hotels and their room rates:

NAME AND LOCATION	No. of Rooms	Single	Double	Double Twin Beds	Suites
COMMODORE PERRY Jefferson Ave. and Superior St.	500	$3.00–5.50	$4.50–7.00	$5.00–8.00	$10.00 and 14.00
NEW SECOR Jefferson Ave. and Superior St.	250	$2.50–4.00	$4.00–5.50	$5.00–6.00	10.00 and up
FORT MEIGS 222 St. Clair St.	250	$2.00–3.00	$3.00–4.00	$4.50–5.00	8.00 and up
WALDORF Summit St. & Madison	500	$2.00–2.50	$3.50–4.00	$4.00–4.50	8.00 and up
WILLARD St. Clair St. and Adams	125	$2.00–3.50	$3.50–5.00	$4.00–5.50	
MELROSE Jefferson Ave. and Superior St.	80	$1.50–2.00	$2.50–3.00	$3.00–3.50	
LORRAINE Jefferson Ave. & 12th St.	150	$2.00–3.00	$3.00–3.50	$3.50–4.00	5.00 and 7.00
ARGONNE 321 Twelfth St.	100	$1.50 and up	$2.50 and up		
				Suites	
HILLCREST Madison Ave. & 16th St.	600	$2.50 and up	$3.50 and up	$3.00 sgl. $4.00 sgl.	$5.00 dbl. 6.00 dbl.

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager ..... Hotel, Toledo, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, May 3-4, 1939, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price: .....

☐ Twin Bed Room with bath ☐ Suite

Arriving May ..... at ..... A.M. ..... P.M.

PLEASE VERIFY MY RESERVATION.

Name .....

Address .....

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Commission Studying Problems of Handicapped Submits Report

A commission created by the last Legislature to study problems of rehabilitation of physically handicapped persons in Ohio, recently announced its recommendations to the 93rd General Assembly.

Signed by Representative George J. Harter, Akron, chairman, and Representative W. H. Whetro, Ironton, secretary, the report recommended:

1: The establishment of a bureau of aid for the physically handicapped needy.

2: Passage of a bill covering articles produced by blind persons which would provide for mandatory state use of the articles with a view of ultimate employment of 50 per cent of the state's employable blind.

3: Amendment of the workmen's compensation law making possible the employing of handicapped persons. "We should provide a means whereby an employer can employ a physically handicapped person without facing the possibility of premium increase because of an industrial accident that might occur in his handicapped employe."

4: Increase of the appropriation of the rotary fund of the Ohio Commission for the Blind to provide continuous employment in home industries and to afford sufficient capital under the commission's supervision to the semi-independent operators.

5: To increase to the maximum the vocational rehabilitation fund matching federal maximum allowance for this work. (Ohio receives an annual allocation of $102,762.)

6: Special training to a limited number of handicapped persons, in social welfare service.

7: Creation of a bureau of registration and placement for physically handicapped persons in the state employment service.

Continuation of the study is proposed in identical bills (S.B. 22 and H.B. 52) now pending before the Legislature.

Cleveland Medical Library Elects

Dr. Frank S. Gibson was elected chairman of the board of trustees of the Cleveland Medical Library Association at its annual meeting, January 20. Other officers are: Dr. Carl H. Lenhart, president; Dr. T. P. Shupe, treasurer; Dr. H. D. Piercy, secretary; Dr. Harold N. Cole, director of finance; Dr. Harry V. Paryzek, membership chairman; Dr. Howard Dittrick, museum director; Dr. Clyde L. Cummer, publications director, and Dr. Robert S. Dinsmore, maintenance director. The annual report was made by Dr. Charles W. Stone, retiring chairman of the board. "The Psychiatrist Considers Bibliomania", was the subject of an address made by Dr. Louis J. Karnosh.

Want Reproduction of Famous Oil Painting? Write Columbus Office

Arrangements to supply Ohio physicians with a complimentary, full-color reproduction of the oil painting "Beaumont and St. Martin" without advertising and suitable for framing, have been made with John Wyeth and Brother, Philadelphia. "Beaumont and St. Martin" is the first of six large paintings in oil memorializing "Pioneers



of American Medicine", which the noted artist, Dean Cornwell, will complete in the next few years. Others in the series are: Dr. Oliver Wendell Holmes, Dr. Ephraim McDowell, Drs. Crawford W. Long and William T. Morton, Major Walter Reed and Dorothea Lynde Dix. Any physician wishing to receive a reproduction of "Beaumont and St. Martin" should address his request to the State Headquarters Office, Ohio State Medical Association, 79 E. State Street, Columbus, Ohio.

A. M. A. Hotel Reservations

Attention of physicians who are planning to attend the American Medical Association meeting at St. Louis, May 15-19, 1939, is called to the list of hotels and schedule of rates appearing on page 37 of the back advertising section of the January 7 issue of *The Journal of the A.M.A.* Accompanying the list is a hotel reservation blank to be addressed to Dr. Neil S. Moore, chairman of the hotel committee, 910 Syndicate Trust Building, St. Louis, Mo.

Funds for Medical Research

Western Reserve University will receive $15,500 during 1939 from various trust funds established by Commodore Louis D. Beaumont, president of the May Co., Cleveland. Of this amount, $8,500 will be used for continuance of research by Dr. Harry Goldblatt, associate professor of pathology at the School of Medicine, and $1,000 for Lakeside Hospital.

Regular Statements Will Improve Collections

STANLEY R. MAUCK

THE most important single factor contributing to the poor collection result of physicians is their own poor system of handling their statement procedure. The No. 1 weakness in the business setup of the average physician is at this point.

Observations in many professional offices clearly indicates that the "sickest" practices, from a collection standpoint, relate to a lax statement policy. The way patients are billed has a bearing on the promptness with which the bills are paid. The physician's own business delinquency invites delinquency in payment. Those who send statements regularly each month usually have the least complaint about collections. Unfortunately only a very few physicians give proper attention to this fundamental principle. The number is increasing, but the percentage still is small.

Statement day is the first of each month. Almost everybody today gets bills at that time—bills for installment payments on this and that or regular charges for the many things that our high-pressure advertising era induces us to buy. Credit buying literally has been forced upon us. It's different from what it used to be, and statements come regularly each month, or oftener when we become delinquent, until the obligations are paid: **that is, all the bills come regularly except the physician's.**

Several months late the doctor may be heard from for the first time, and possibly at a less opportune time than at the date of service, when the patient was braced for the bill and was better prepared to pay. Also the value of the service may be dimmed by the passing months, and this delayed first statement now looks pretty steep.

In curing the patient, the physician often cures the urge to compensate, at least when considered in retrospect. The doctor can't be needing money, the patient reasons, else he would have asked for it sooner, so the bill is put aside. And the doctor encourages taking even more time when evidence of the obligation is not repeated by a second statement at the beginning of the next month. Subsequently statements probably are sent at spasmodic intervals—and at spasmodic intervals part payments are made on the account. Or, maybe new illness has intervened, or the job is lost, or your patient moves, "address unknown" —and you still "hold the bag".

But all the while, **regularly each month on the 1st**—not the 8th or the 12th—the other bills arrive, from the people who are so "unethical" as to keep their customers ever conscious of their obligations. And your patient—their customer—pays their bills while **you** wait—and the patient continues to be rated A-1 at the local credit bureau! Doubtless you would have been paid with at least reasonable promptness had you indicated, by your statement procedure, that you, too, **expected** promptness on your bill.

This hit-and-miss system of statements, on the other hand, is hardly fair to the patient. He has the right to know promptly what has been the cost of services rendered. He may need to plan to fit the payment, or the payments, into his budget, or to know what other services or commodities might be purchased after careful allowance for your bill, without undue strain on the family purse. Without this knowledge, however, the other things are likely purchased anyway, and in too generous amounts, for your delay is probably interpreted as leniency that will, of course, be reflected also in the **amount** of your charges.

So when your bill finally arrives, and is larger than expected, you wait until the other **more pressing obligations** are taken care of. Or, as often happens, you finally lose patience and turn the account in for collection, without due notice or warning that your own billing policy was

THIS is the second of a series of articles on "Office Problems of the Physician" which will be presented in Volume 35 of The Ohio State Medical Journal.

Mr. Mauck, author of the series, is an alumnus of Ohio Wesleyan University and holds a master of arts degree from Harvard University, Department of Economics. He is a resident of Columbus where he serves as executive secretary of the Columbus Academy of Medicine and as director of the Columbus Bureau of Medical Economics. Previously he operated a professional management service for physicians and served as branch and district sales manager, respectively, for two large rubber companies. Mr. Mauck knows this subject and The Journal is fortunate in having secured his services for this series.

not, after all, a sign that you did not want your money.

Collecting agencies hear constant complaint against physicians on this score. Excuses, yes, in many instances, but often clear evidence of a needless injustice done to self-respecting patients who can hardly be blamed for taking too liberal advantage of your own indefensible business relations with them. While you may regard the age of the account as dating from the time of service, and rate it as delinquent accordingly, the patient is likely to think only in terms of the **date on your first statement** and interpret your own follow-up of the account as governing the urgency for payment.

ENCOURAGES "DEAD-BEATS"

Then, too, your delayed and irregular billing gives lee-way to the truly irresponsible patient. Had you billed him promptly and consistently for several months, without response of any kind, you might have recognized him as a "dead-beat" and acted accordingly. Most responsible people will pay, or at least report, within 60 or 90 days if regularly billed, and it is quite generally conceded by authorities that when an account has run 90 days delinquent, without explanation, it has lost fully 35 per cent of its original value. But in a physician's practice, at the end of such a normal billing period this doubtful account may not have received even his first statement. And by the time the physician finally awakens to the true status of the account, possibly a year or more later, the patient may have skipped or otherwise placed himself beyond collection. Earlier statements and a proper follow-up might have forced his hand before he became hopelessly uncollectible. By your carelessness you make it easier for the scalawag.

Collection percentages as low as 60 per cent or 70 per cent are not uncommon among physicians, who themselves must assume much of the blame for this condition. This means that a physician with an annual gross practice of $6,000 may have an actual cash income of only $3,600 or $4,200. Accurate statistics are lacking because so many physicians do not keep correct figures. Best estimates indicate that the average for all types of practice, general and specialty in country, towns and cities, will likely be somewhere around 75 per cent. The collection ratio for physicians' accounts, for various reasons, will never compare with the 1 per cent or 2 per cent loss in the commercial field, but the result among professional men, nevertheless, is unnecessarily low. Within certain limits, the physicians' collection ratio is definitely controllable, and with deserving attention to elementary business essentials may often be maintained at 90 per cent or above, depending on such other factors as the type of practice, locality, economic condition, etc.

A REAL REMEDY

Personal experience in applied professional business management, extending over several years, has demonstrated that the margin between the doctor's **actual cash income** and what he **might have had** is closely related to the way he handles statements. Invariably the first point of attack in the process of "doctoring the doctors" for their low blood pressure in business efficiency, is on statements. This does not mean that statements **alone** solve the collection problem. But they materially help. And in many offices where our service has been employed we have seen the collection ratio jump 5, 10 or 15 per cent when monthly billing and proper follow-up are steadily applied. It is within the power of almost every physician to adopt the one remedy that will do more than anything else to raise his collection percentage. For those who do so, the cash reward will be gratifying and in direct proportion to the extent and the consistency of the corrective measures adopted.

THREE VITAL FACTORS

Three factors are largely responsible for the haphazard statement methods of most physicians: (1) tradition, (2) aversion to business detail and, (3) the absence of adequate records.

It is presumed by some, especially those of the older school, that there is a question of ethics involved in the regular billing of patients. Tradition is still strong on this point, and if the profession itself continues to encourage patients to feel that their doctor bills are in a separate category from other obligations, the public cannot be blamed entirely for its characteristic indifference.

Almost everybody, regardless of income brackets, has his salary or wages pledged before being received. Consequently, the bills that are paid most promptly are those which have been kept consistently before the purchaser as pressing obligations. Doctor bills usually are not thus regarded by reason of the fact that the physician himself has educated his patients otherwise. Many good reliable people thus postpone payment to the doctor until a more convenient season, after the really **urgent** bills have been paid. And in this postponement and delay even many of the "good as gold" accounts are lost entirely by the intervention of various circumstances which thwart or modify even the best of intentions toward the dear old doctor.

Why, therefore, is it unethical for the physician to be prompt and businesslike in sending statements so that he may receive his pro rata share of the family income allotted to bill-paying

purposes each month? Exceptions must be made in specific circumstances, of course, and doctors will always extend generous consideration, when warranted. Proper discrimination will easily segregate these worthy cases. Charity should be recognized as such and the patient relieved of the embarrassment of bills which obviously he can never pay; and the physician should avoid setting up a fictitious asset in an account that he will never collect. Our discussion relates solely to persons who are self-supporting in every other phase of their economic existence and from whom the physician has every right to expect payment for his services. For these we see no question of ethics in the matter of regular monthly statements and a systematic and orderly follow-up for expected payment.

NEEDS TRAINED HELP

The second factor contributing to the careless statement procedure is the physician's own aversion to, and lack of, training for this work. While many physicians admit their shortcomings in such matters, and recognize the necessity for better system, they seem to be willing to accept lower compensation rather than apply corrective measures. The job of getting out several hundred statements regularly each month is just too much for the average physician. But after all, it is a very necessary matter and will yield large dividends on the time required in the handling. Even in the offices employing secretaries, the work is frequently glossed over. Seldom do we discover an office giving this important work the attention it demands. Taking her cue from the physician himself, the secretary is quite likely to assume the same attitude toward statements—some this month, some next, some very seldom, some not at all, with actual mailing strung out over half the month, or longer, for the ones that are sent. There seems always to be more important things to do than to send statements. The secretary seldom undertakes to reform her employer, and even though she may have had commercial office experience, she easily drifts into the indifference and laxity that characterizes the average professional office.

The use of the standard 6¾" government "window" envelopes, No. 13, greatly facilitates statement procedure. A 6" x 7" statement form can be folded once, with name and address on the top fold below the heading, and inserted in the envelope so that the one addressing of the statement constitutes the envelope address also. This also avoids the occasional confusion of enclosing statements in the wrong envelopes. Once window envelopes are adopted they will never be discarded. They simplify the mechanics of statements and their use will materially lessen the burden of billing at the end of the month and thus encourage better control of this operation.

The third factor influencing the statement policy is the inefficiency of office records. Making up statements IS a job, psychologically at least, in working with the type of records frequently kept by physicians. The "books" in many offices are likely to be some jumbled figures in a ponderous, imposing ledger, ill-suited to a doctor's purpose, or poorly classified entries in an ordinary school copy-book. In between these extremes we find many variations of inadequate records. Even when better suited loose leaf ledgers, or standard ledger cards, are used their full advantage is likely to be lost because totals are not carried forward after each new entry. Consequently, at statement time a lot of extra work is required for the physician or his secretary in deciphering or analyzing each account in an effort to arrive at the correct balance. Furthermore, missing addresses and the absence of first names or initials contribute to the difficulty of the task. It is little wonder that statements are such a "headache" when the routine is so unnecessarily complicated by the way the accounts are kept. Statements take but little time and the job should not be burdensome if simple, adequate records are maintained. In the next article "Office Records" will be discussed in more detail.

Tentative Program for Congress on Obstetrics and Gynecology

The American Congress on Obstetrics and Gynecology sponsored by the American Committee on Maternal Welfare, Inc., will be held at Cleveland September 11-15. Member organizations of the American Committee on Maternal Welfare, Inc., include the Section on Obstetrics and Gynecology of the American Medical Association; American College of Surgeons and the American Association of Obstetricians, Gynecologists and Abdominal Surgeons. The Congress was proposed by the Central Association of Obstetricians and Gynecologists to study present-day problems in obstetrics and gynecology and their solution. Its purpose is the presentation of scientific material, mostly of factual type. Scientific sessions of the medical section are scheduled for the mornings of September 11 to 15. Round-table discussions will be held each day from 11:45 to 1:15. Joint afternoon sessions will be held with nursing, public health and institutional administrative groups. A complete scientific and educational exhibit portraying the theme of human reproduction with its allied subjects of maternal and neonatal care is being developed. Dr. Fred L. Adair, Chicago, is chairman of the executive committee. Dr. W. R. Barney, Cleveland, is chairman of local arrangements and Dr. Roy E. Krigbaum, Columbus, is a regional chairman.

Annual Post-College Assembly, College of Medicine, Ohio State University, To Be March 2, 3 and 4

ALL Ohio physicians are cordially invited to attend the Annual Post-Collegiate Assembly of the Ohio State University College of Medicine to be held at Columbus, Thursday, Friday and Saturday, March 2, 3 and 4, in celebration of the 105th anniversary of the founding of Willoughby Medical College.

Registration headquarters will be in Hamilton Hall, at Neil and Eleventh Avenues. During Thursday morning, routine operative and medical clinics will be held at Children's, St. Francis and Starling Loving University Hospitals. The new Out-Patient Clinic on West Tenth Avenue, which was formally occupied last October, will be in operation.

The formal scientific program will begin Thursday afternoon at 2 o'clock, in the Conference Room of University Hospital, Dr. Charles A. Doan, professor of medicine, presiding. Twelve talks, each 15 minutes long, will be given at this session. A summary of the research being done in the various departments will be reported by the department heads at a meeting to be held Thursday evening in the University Hospital Conference Room. Dean J. H. J. Upham will preside.

SHORT CLINICAL TALKS

Friday morning will be devoted to ten minute talks by members of the faculty on clinical topics. Beginning at 9 o'clock, sessions will be held simultaneously in Rooms 211, 312 and 416, Hamilton Hall, with Dr. Clayton S. Smith, Dr. Rollo C. Baker and Dr. Jonathan Forman presiding. Part of these programs have been arranged on the symposium idea so that those who attend may hear several talks on allied clinical problems. A similar group of talks will be presented in the same rooms on Friday afternoon, Dr. Herbert M. Platter, Dr. Harry L. Reinhart and Dr. N. Paul Hudson, presiding.

An innovation on this year's program is a series of problem clinics or round-table discussions, scheduled for 11 o'clock Friday morning and from one to four o'clock Friday afternoon. Physicians are requested to mail to the Medical Assembly Committee questions on topics related to the fields designated in the program for round-table discussion. Questions submitted will be considered by the leaders in the course of the discussion.

CLENDENING TO SPEAK

Dr. Logan Clendening, Kansas City, Mo., professor of clinical medicine, University of Kansas School of Medicine, will deliver the annual Alpha Omega Alpha lecture, Friday evening, at eight o'clock, in University Chapel. His subject is: "The Doctor in Art, Literature and Music". Dr. George M. Curtis will preside.

The scientific session Saturday morning, beginning at 10 o'clock, will be held in the Hall of Mirrors of the Deshler-Wallick Hotel. Speakers will be Dr. Lowell A. Erf, Rockefeller Institute, New York City; Dr. Joseph A. Johnston, director, Pediatric Department, Henry Ford Hospital, Detroit; Dr. Virgil S. Counseller, Mayo Clinic, Rochester, Minn., and Dr. Arthur W. Thomas, chief, Bureau of Child Hygiene, State Department of Health. Dr. Verne A. Dodd, professor of surgery, will preside.

CLASS REUNIONS

The Alumni Reunion and Class Luncheon, Saturday noon, at the Deshler-Wallick Hotel, will be presided over by Dr. Charles T. Atkinson, Middletown, who is president of the Medical Division of the Ohio State University Alumni Association. Guests at this session will include the two physicians who are members of the University's Board of Trustees, Dr. Burrell Russell, New Philadelphia, and Dr. C. J. Altmaier, Marion; Dr. Gatewood, Chicago, who represents the Alumni Board of Visitors, and John B. Fullen, executive secretary, Ohio State University Alumni Association.

Dr. I. B. Harris will preside at the Saturday afternoon session, beginning at 3 o'clock, in the lecture room of St. Francis Hospital. Features of this session will be a talk by Dr. Jonathan Forman on the laying of the cornerstone of St. Francis Hospital and the Starling Medical College 90 years ago, and reminiscences by Dr. Leslie L. Bigelow on his association with the late Dr. Starling Loving, former head of the Medical College.

COMMITTEE IN CHARGE

Over 400 physicians attended the Post-Collegiate Assembly last year. It is anticipated that this attendance will be exceeded this year because of the unusually comprehensive and practical program.

The committee in charge of the assembly consists of Dean J. H. J. Upham, ex-officio; Dr. Russel G. Means, chairman; Dr. Jonathan Forman, secretary-historian; Dr. C. A. Doan, Dr. V.

A. Dodd, Dr. H. M. Platter, Dr. N. P. Hudson, and Dr. I. B. Harris.

The complete program follows:

THURSDAY AFTERNOON, MARCH 2

Conference Room, University Hospital

Dr. Charles A. Doan, presiding

2:00 "The Effect of Sulphanilamide on the Blood Forming Organs", Dr. S. J. Wilson.
2:15 "Studies of Multiple Myeloma", Dr. Emma H. Boyle.
2:30 "Cardiologic Interpretations", Dr. D. L. Mahanna.
2:45 "Tumors of the Pituitary", Dr. M. A. Hammel.
3:00 Recess.
3:10 "Male Sterility", Dr. R. A. Hancock.
3:25 "The Hormonal Therapy of Institutional Psychoses", Dr. N. O. Rothermich.
3:40 "Tumors of the Heart", Dr. C. R. Walters.
3:55 "The Artificial Production of Tumors with Hydrocarbons", Dr. R. G. Weaver.
4:10 "High Vitamin D Treatment of Arthritis; Calcium and Phosphorus Metabolism Changes", Dr. Karl P. Klassen.
4:25 "Embolectomy in Peripheral Arterial Occlusion", Dr. K. T. Langacher.
4:40 "Early Treatment of Compound Fractures", Dr. Paul C. Foster.
4:55 "Fibroma of the Ovary", Dr. Richard Zollinger.

THURSDAY EVENING, MARCH 2

Conference Room—University Hospital

Dean J. H. J. Upham, presiding

8:00 "A Summary of Research in the Department of Anatomy", Dr. Rollo C. Baker.
8:15 "A Summary of Research in the Department of Bacteriology", Dr. N. Paul Hudson.
8:30 "A Summary of Research in the Department of Physiology", Dr. F. A. Hartman.
8:45 "A Summary of Research in the Department of Surgical Research", Dr. George M. Curtis.
9:00 "A Summary of Research in the Department of Physiological Chemistry and Pharmacology", Dr. Clayton S. Smith.
9:15 "A Summary of Research in the Department of Medicine", Dr. Charles A. Doan.
9:30 "A Summary of Research in the Department of Pathology", Dr. Emmerich von Haam.
9:45 "A Summary of Research in the Department of Obstetrics", Dr. Andrews Rogers.

FRIDAY MORNING, MARCH 3

Registration opens 8:00 A.M.

Hamilton Hall—Medical College Building Room 416

Dr. Jonathan Forman, presiding

9:00 "The Dietary Management of Cases of Food Allergy", Dr. Jonathan Forman.
9:10 "Allergic Problems Associated with the Use of Horse Serum", Dr. John H. Mitchell.
9:20 "Allergic Manifestation of Common Drugs", Dr. Wm. F. Mitchell.
9:30 "A Clinical Test of Potassium Chloride in Certain Allergic Disease", Dr. M. F. Osborn.
9:40 "Justifiable Surveys in Tuberculosis", Dr. Myron Miller.
9:50 Recess.
10:00 "Lipiodol in Pulmonary Diagnosis", Dr. Donald E. Yochem.
10:10 "Treatment of Bronchiectasis", Dr. George M. Curtis.
10:20 "Studies on the Lipoid Growth Factor for Tubercle Bacillus", Dr. H. W. Schultz.
10:30 "Why Cases of Late Tuberculosis in a Public Health Clinic", Dr. Dan Morse.
10:40 "Adult Tuberculosis in Children", Dr. C. H. Benson.
10:50 Recess.
11:00 "Pigmentation of Hair in Addison's Disease", Dr. Rollin R. Durrant.
11:10 "The Sodium Factor of the Adrenal", Dr. F. A. Hartman.
11:20 "Administration of Alkali and Its Effect on Acid-Base Equilibrium", Dr. Adrian Kuyper.
11:30 "Diagnostic Significance of Blood Phosphotase", Dr. H. G. Knierim.

FRIDAY MORNING, MARCH 3

Hamilton Hall—Medical College Building Room 312

Dr. Rollo C. Baker, presiding

9:00 "Smoking and the Peripheral Blood Vessels", Dr. Dwight W. Palmer.
9:10 "The Rheumatic Heart", Dr. Warren W. Hicks.
9:20 "Cardiac Diagnoses and Hospital Records", Dr. Robin C. Obetz.
9:30 "Co-Arctation of the Aorta", Dr. George I. Nelson.
9:40 "Recognition of Impending Coronary Artery Occlusion", Dr. R. W. Kissane.
9:50 Recess.
10:00 "Cholescytography", Dr. Hugh J. Means.
10:10 "The Tendency to Bleed in Biliary Disease", Dr. H. L. Reinhart.
10:20 "Bile Acid Therapy in Biliary Disease", Dr. C. J. DeLor.
10:30 "Cyclopropane Anesthesia in Biliary Surgery", Dr. Jessie Jasper.
10:40 "Shall We Take the Gall-Bladder Out?" Dr. John W. Means.
10:50 Recess.
11:00 "Comparison of the Precipitin Tests for Syphilis", Dr. R. M. Hartwell.
11:10 "Mapharsen in the Treatment of Syphilis", Dr. B. F. Barney.
11:20 "Tularemia", Dr. S. A. Hatfield.
11:30 "The Occurrence of Equine Encephalomyelitis in Man", Dr. N. Paul Hudson.
11:40 "Treatment of Ringworm", Dr. Jos. H. Shepard.

FRIDAY MORNING, MARCH 3

Hamilton Hall—Medical College Building Room 211

Dr. Clayton S. Smith, presiding

9:00 "Thyroid Stimulation by Cold", Dr. Gordon C. Ring.
9:10 "Significance of Ataxia", Dr. Harrison Evans.

9:20 "Present Status of Shock Therapy in Treatment of Psychoses", Dr. Nicholas Michael.
9:30 "Tic Douloureux", Dr. H. E. LeFever.
9:40 "Paranoia", Dr. Frank Wagenhals.
9:50 Recess.
10:00 "Sciatic Pain of Unknown Origin", Dr. C. C. Shinbach.
10:10 "Rupture Nucleus Pulposus", Dr. Roy J. Secrest.
10:20 "Recent Development in Mental Health", Dr. J. F. Bateman.
10:30 "Dilantin in Treatment of Epilepsy", Dr. Morris Guthrie.
10:40 "Extraneous Causes of Vertigo", Dr. Hugh Beatty.

Symposium on the Cross-Eyed Child.

11:00 "Etiology and Diagnosis", Dr. C. S. Perry.
11:10 "Refraction and Occlusion", Dr. W. A. Stoutenborough.
11:20 "Orthoptic Training", Dr. H. M. Sage.
11:30 "Surgical Indications", Dr. A. D. Frost.
11:40 "Dermatitis Venenata", Dr. H. M. Platter.

FRIDAY AFTERNOON, MARCH 3

Hamilton Hall—Medical College Building Room 416

Dr. Herbert M. Platter, presiding

1:00 "The Problems of Resuscitation", Dr. Drew L. Davies.
1:10 "Clinical Significance of Basal Metabolic Rate Determinations", Dr. F. A. Hitchcock.
1:20 "Froelich's Syndrome", Dr. H. R. Mitchell.
1:30 "Fistula in Ano", Dr. Paul Palmer.
1:40 "Recent Advances in Legal Medicine", Dr. Clayton Smith.
1:50 "Obesity in Females", Dr. John Horst.
2:00 Recess.
2:10 "Significance of Cytolytic Functions of the Spleen in Relation to Blood Diseases", Dr. Bruce K. Wiseman.
2:20 "Deep and Superficial Thrombophlebitis", Dr. Robert C. Kirk.
2:30 "Sore Throat", Dr. Edw. W. Harris.
2:40 "The Causes of Persistently Discharging Ears", Dr. Russel G. Means.
2:50 "Psoriasis", Dr. C. J. Shepard.
3:00 Recess.

Symposium on Student Health Problems.

3:10 "Observation Quarantine of Students", Dr. James A. Beer.
3:20 "Trichomonas Vaginalis in College Girls", Dr. Shirley Armstrong.
3:30 "Hyperinsulinism in Students", Dr. T. C. Allenbach.
3:40 "Incidence of Appendicitis in Ohio State Students", Dr. J. M. Foley.
3:50 "Rheumatism and Rheumatic Heart Disease in Students", Dr. J. W. Wilce.
4:00 Recess.
4:10 "Smith-Peterson Nail in Fractures of the Neck of the Femur", Dr. E. H. Wilson.
4:20 "Workmen's Compensation and Low Back Pain", Dr. Sidney McCurdy.
4:30 "Fractures of the Lower End of the Femur", Dr. Judson D. Wilson.
4:40 "Sprains", Dr. H. P. Worstell.
4:50 "Scalneus Anticus Syndrome", Dr. C. W. Dawson.

FRIDAY AFTERNOON, MARCH 3

Hamilton Hall—Medical College Building Room 312

Dr. Harry L. Reinhart, presiding

1:00 "Gastroscopy", Dr. Philip Knies.
1:10 "Variations of the Splanchnic Nerves in Man", Dr. L. F. Edwards.
1:20 "Referred Pain of the Peritoneum", Dr. Grant Graves.
1:30 "The Control of Colon Motility", Dr. Frank E. Hamilton.
1:40 "The Use of Prostigmin for Gas Pains", Dr. Gilman B. Kirk.
1:50 Recess.
2:00 "The Medical Management of Intestinal Obstruction", Dr. H. M. Clodfelter.
2:10 "Colitis", Dr. Walter H. Hamilton.
2:20 "Diagnosis of Atypical Cases of Appendicitis", Dr. H. E. Boucher.
2:30 "Newer Things in the Management of Post-Operative Ileus", Dr. E. J. Stedem.
2:40 "Diagnosis of Atypical Gastrointestinal Complaints", Dr. Clark Pritchett.
2:50 Recess.
3:00 "Treatment of Nephrosis", Dr. Oscar W. Jepsen.
3:10 "Parathyroid Gland in Culture and Transplants", Dr. Ben C. Houghton.
3:20 "Cytological Diagnosis of Tumors", Dr. H. B. Davidson.
3:30 "Present Status of 'Cancer Reactions'", Dr. R. W. Pagel.
3:40 "Increasing Value of Endometrial Biopsies", Dr. R. S. Fidler.
3:50 Recess.
4:00 "Aniline Dye Treatment of Burns", Dr. Paul H. Charlton.
4:10 "End Results of Prostatic Surgery", Dr. W. N. Taylor.
4:20 "Hematuria", Dr. Conrad Kuehn.
4:30 "Treatment of Cancer of the Body of the Uterus", Dr. E. T. Kirkendall.
4:40 "Cauterization of the Cervix", Dr. Philip J. Reel.
4:50 "Surgery in Acute Pelvic Inflammations", Dr. Tom F. Lewis.

FRIDAY AFTERNOON, MARCH 3

Hamilton Hall—Medical College Building Room 211

Dr. N. Paul Hudson, presiding

1:00 "Effect of Pregnancy on Varicosities of the Lower Extremities", Dr. George B. Watson.
1:10 "The Use of Kielland Forceps in the Management of Occiput Posterior and Transverse Arrest", Dr. Dana Cox.
1:20 "Retained Placenta", Dr. J. C. Vanneter.
1:30 "Therapeutic Use of Corpus Luteum Hormone", Dr. C. W. Pavey.
1:40 "Diet in Pregnancy", Dr. Herman Koerper.
1:50 "Syphilis in Pregnancy", Dr. Frank C. Davis.
2:00 Recess.
2:10 "The Kidney in Toxemias of Pregnancy", Dr. F. C. Andrus.
2:20 "Water Balance in Toxemias of Pregnancy", Dr. Tom F. Ross.
2:30 "Psychoses in Pregnancy", Dr. Andrews Rogers.

2:40 "Rheumatic Fever in Children Under Five Years", Dr. Ruth A. Koons.
2:50 Recess.
3:00 "Is the 'Well Baby' Leading Us Into State Medicine?" Dr. O. L. Coddington.
3:10 "Gonorrhea in Children", Dr. John Hoberg.
3:20 "Roseola Infanta, a Common Disease", Dr. J. E. Brown, Jr.
3:30 "Anorexia in Infants and Young Children", Dr. Earl H. Baxter.
3:40 "Are We Neglecting Posture in the Management of Children", Dr. Mary Graber.
3:50 Recess.
4:00 "Common Errors in Handling the Diphtheria Problem", Dr. E. G. Horton.
4:10 "Common Errors in the Diagnosis of Certain Infectious Diseases", Dr. O. C. Woolpert.
4:20 "Treatment of Infant Diarrhea", Dr. S. D. Edelman.
4:30 "Helpful Tricks in Infant Feeding", Dr. M. L. Ainsworth.
4:40 "Acute Ear Infections in Children", Dr. H. B. Emswiler.
4:50 "Recent Development in Vitamin Therapy", Dr. John B. Brown.

FRIDAY, MARCH 3

Hamilton Hall—Medical College Building

Round-Table Discussions

The leaders are desirous of discussing YOUR problems. Mail your topics care Medical Assembly Committee, Office of Dean J. H. J. Upham, Ohio State University, Columbus.

11:00 A.M. Room 415 "Treatment Problems in Thyroid Disease",—Dr. George M. Curtis, leader.
1:00 P.M. Room 218 "Problems Dealing with the Minor Psychoses"—Dr. George T. Harding, leader.
2:00 P.M. Room 415 "Problems of the Endocrine Glands"—Dr. Emmerich von Haam, leader.
3:00 P.M. Room 218 "Abdominal Surgical Problems"—Dr. Verne A. Dodd, leader.
4:00 P.M. Room 415 "Blood Dyscrasias, Problems of Diagnosis and Treatment" —Dr. Charles A. Doan, leader.

FRIDAY EVENING, MARCH 3

ALPHA OMEGA ALPHA

Annual Lecture

8:00 P.M. University Chapel—Old Main Bldg.

Dr. George M. Curtis, presiding

Dr. Logan Clendening, professor of clinical medicine, University of Kansas School of Medicine.

"The Doctor in Art, Literature and Music."

The University Hospital Interns and Residents Association will meet at the Deshler-Wallick Hotel, following Dr. Clendening's Lecture.

SATURDAY MORNING, MARCH 4

Deshler-Wallick Hotel—Hall of Mirrors

Dr. Verne A. Dodd, presiding

10:00 Dr. Lowell A. Erf, '31, The Rockefeller Institute Hospital, New York City.
"The Effects of New Drugs in the Treatment of Pneumonia".
10:40 Dr. Arthur W. Thomas, '14, chief, Bureau of Child Hygiene, State Department of Health,
"Cooperating With the Physicians of the State of Ohio".
10:50 Dr. Joseph A. Johnston, director, Pediatric Department, Henry Ford Hospital, Detroit, Michigan,
"Factors Which Affect Growth".
11:30 Dr. Virgil S. Counseller, Ex. '20, Mayo Clinic, Rochester, Minn.
"Ovarian Neoplasms, Their Pathological and Surgical Significance".

Adjournment for Reunion and Class Luncheons

SATURDAY NOON, MARCH 4

Main Ball Room—Deshler-Wallick Hotel

12:30-2:00 Alumni Reunion and Class Luncheons Presiding, Dr. Charles T. Atkinson, '16, Middletown, President of the Medical Division, Ohio State University Alumni Association.

Guests

Dr. C. J. Altmaier, '05, Marion, Trustee of the University.
Dr. Burrell Russell, New Philadelphia, Trustee of the University.
Dr. Gatewood, A. E., '07, M.A., '10, Chicago, Ill., Alumni Board of Visitors.
John B. Fullen, Exec. Sec'y, Ohio State University Alumni Association.

SATURDAY AFTERNOON, MARCH 4

St. Francis Hospital Nurses' Home, Entrance 308 East Town Street

Dr. I. B. Harris, presiding

3:00 "The Laying of the Cornerstone of the St. Francis Hospital Building Ninety Years Ago", Dr. Jonathan Forman.
3:20 "Starling Loving", Dr. L. L. Bigelow.
3:40 "Urethral Caruncle and Granulomata", Dr. Luke Zartman.
3:50 "Cancer of the Colon", Dr. I. B. Harris.
4:00 "Stricture of the Male Urethra", Dr. L. J. Roth.
4:10 "A Case of Arsene Poisoning", Dr. Tom Rardin.
4:20 "Crystalline Insulin", Dr. M. P. Kanter.
4:30 "Asthma", Dr. L. H. Van Buskirk.
4:40 "Treatment of Syphilitic Aortitis", Dr. C. C. Sherburne.

SATURDAY EVENING

Medical Fraternity Banquet, 6:30 P.M.

Dispensary Restricted to Needy

Ohio State University College of Medicine has announced that the services of the new Out-Patient Department located on the University Campus are restricted **to those who by usual standards cannot afford to pay for the services of private physicians.** Since the opening of the department, many patients have mistaken it for a private clinic and some physicians in various parts of the state have been sending in patients who are outside of the economic group served by the clinic.

Cooperation of Industry in Campaign Against Syphilis Is Requested

The United States Public Health Service has advocated a six-point program to prevent the spread of syphilis among employees in industry. The recommendations are as follows:

1. Routine blood tests for applicants for employment.
2. Routine blood tests at the time of periodic reexamination of employees.
3. Industry, with its compact organization, should develop a vigorous educational program.
4. Industry should extend its educational campaign into the field of prophylaxis.
5. There is a responsibility upon the industrial medical officer to see that adequate modern treatment is available to employees at prices ordinary wage earners can afford. If such treatment is not available in private practice or at public clinics, industrial medical service should undertake such treatment.
6. Syphilis must at all times be handled as merely another communicable disease. The privacy of relations between the worker and the medical service should be preserved in the best professional tradition. In ordinary cases it cannot be regarded as ground for discrimination of any kind against employees, when treatment is properly required.

Dr. R. A. Vonderlehr, Assistant Surgeon General in charge of the Venereal Disease Division, states that when syphilis cases are given proper treatment, industry runs a minimum of risk of having workers disabled or partially disabled from the disease. A recent survey showed that symptoms of syphilis of the nervous system resulted in only 1.6 per cent of the properly treated cases under observation. For untreated cases the rate was 16.9 per cent.

Ohio Physicians Should Beware of Cappers for Unknown Firms

Ohio physicians should be wary of a salesman calling himself "Halsey", representing Halsey & Co., Pittsburgh, offering to repair syringes, surgical instruments and apparatus, and taking orders for equipment, a Middletown physician has reported to *The Journal*. The physician placed an order with the "salesman" and paid for it in advance. Not having received the supplies after several weeks, he wrote "Halsey" at his alleged address in Pittsburgh—1209 Broad St. The letter was returned marked "unclaimed". Other physicians have been victimized either by this man or someone else using the same system. Salesmen who do not represent recognized concerns should be carefully interrogated before any business is done with them.

Ohio Anesthetists to Meet in Toledo on May 4

The newly organized Ohio Society of Anesthetists will hold its first meeting at Toledo, May 4, during the 93rd Annual Meeting of the Ohio State Medical Association.

The society is composed of members of the Ohio State Medical Association who are interested in anesthesia, pneumatology and related subjects. The American Society of Anesthetists, national anesthesia society, will meet with the Ohio Society at that time, the first time such a meeting has been held in Ohio.

Arrangements for the meeting are in charge of a committee consisting of Dr. R. J. Whitacre, East Cleveland, chairman; Dr. A. A. Brindley, Toledo; Dr. A. L. Schwartz, Cincinnati, and Dr. K. C. McCarthy, 2228 Ashland Avenue, Toledo, secretary, to whom inquiries may be directed. An interesting program is being arranged, announcement of which will be made later. All members of the Ohio State Medical Association interested in anesthesia are invited to attend the meeting.

Memorial Services for Late Dr. Todd

Former colleagues and associates of Dr. T. Wingate Todd, Henry Willson Payne Professor of Anatomy of Western Reserve University School of Medicine, who died December 28, 1938, paid tribute to his memory in a service in Amasa Stone Chapel of Western Reserve University, Sunday afternoon, January 15. Resolutions in honor of Dr. Todd were presented by Dr. Elliott C. Cutler, professor of surgery, Harvard University Medical School; Hon. Harold H. Burton, mayor of Cleveland; Dr. Roy W. Scott, clinical professor of medicine at Western Reserve University; Dr. William C. Stillson, professor of dental anatomy at Western Reserve University; Dr. Joel B. Hayden, headmaster of Western Reserve Academy; Dr. Clyde L. Cummer, past president, Cleveland Academy of Medicine, and Howard Whipple Green, secretary of the Cleveland Health Council. President Winfred G. Leutner of the university, presided. Dr. Hayden gave the invocation and benediction.

Book on Physicians' Hobbies

Do you or any of your medical friends play any musical instrument? Mead Johnson & Company is now preparing a new publication devoted to the hobbies and achievements of physicians, past and present, in the field of music. Doctors' orchestras, doctors' glee clubs, historical or biographical items, with or without illustrations, will be welcomed. Send your item to Mead Johnson & Company, Evansville, Ind. (If you have not received your free copy of their recent publication "Parergon," devoted to fine art by doctors, send for it now.)

In Memoriam

Horace Colton Bliss, M.D., Cleveland; Cleveland College of Physicians and Surgeons, 1897; aged 82; member of the Ohio State Medical Association and the American Medical Association; died December 15. One of Cleveland's oldest and most picturesque physicians, Dr. Bliss practiced in the Southeast section of the city for 40 years. His hobbies were photography and geology. Dr. Bliss was a member of the Church of the Covenant. His widow survives.

Lyman Augustus Brewer, M.D., Toledo; University of Michigan Medical School, Ann Arbor, 1887; aged 73; member of the Ohio State Medical Association, Fellow of the American Medical Association and the American College of Surgeons; died January 16. Dr. Brewer celebrated 50 years of active practice in May, 1937. He helped organize Mercy Hospital, Toledo, and had been chief of staff there since its opening. For several years Dr. Brewer served as dean and professor of surgery in Toledo Medical College. During the World War he was captain in the Medical Corps of the U. S. Army, being stationed in the Receiving Hospital at Grand Central Station, New York City.

Peter Wesley Byers, M.D., Arcanum; Medical College of Ohio, Cincinnati, 1900; aged 75; former member of the Ohio State Medical Association and the American Medical Association; died December 25. Dr. Byers retired a few months ago after having practiced in Arcanum for 38 years. Prominent in the civic and religious affairs of the community, he had served on the Board of Public Affairs, Board of Education, Darke County Board of Visitors, and for 35 years taught the Men's Bible Class of the United Brethren Church. Surviving are his widow, a daughter and a son—Dr. Guy E. Byers, Salem.

Henry Wellington Cook, M.D., Hicksville; Western Reserve University School of Medicine, Cleveland, 1895; aged 74; member of the Ohio State Medical Association and the American Medical Association; died January 7. Dr. Cook practiced in Avilla, Indiana, for 14 months, locating in Hicksville in 1896, where he continued in active practice until his death. He was a former member of the Hicksville and Defiance County school boards. His widow, a daughter, three sons and a sister survive.

Theodore Dodd, M.D., Steubenville; Indiana Medical College, School of Medicine of Purdue University, Indianapolis, 1907; aged 72; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 22. Dr. Dodd taught in public schools in Jefferson County for several years prior to studying medicine. After a year in practice in Wintersville, he opened an office in Steubenville, where he practiced for 31 years. Surviving are his widow, three sons and a sister.

Raymond E. Gaston, M.D., Cincinnati; Miami Medical College, Cincinnati, 1905; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died January 3. A member of the staffs of Christ and St. Francis Hospitals, Dr. Gaston practiced in Cincinnati for 34 years. During the World War he was a lieutenant in the Medical Corps of the U. S. Army. His hobby was the collection of antiques, especially lamps and lighting fixtures. Dr. Gaston was a member of the Masonic Order, the J.O.U.A.M., Macabees, and an elder of the Presbyterian Church. Surviving are his widow, his mother, a sister and two brothers.

Ezekiel E. Gillilan, M.D., Columbus; Kentucky School of Medicine, Louisville, 1893; aged 67; died December 28. Dr. Gillilan established practice at Amesville, Athens County, locating in Columbus in 1912, where he was in active practice until his retirement two years ago. Surviving are his widow, a daughter, and a brother—Strickland Gillilan, well-known poet and humorist.

Abraham Benjamin Grossman, M.D., Cleveland; Western Reserve University School of Medicine, 1914; aged 50; former member of the Ohio State Medical Association and the American Medical Association; died January 10. Dr. Grossman retired five years ago after having practiced in Cleveland for 20 years. During the World War he served overseas in the Medical Corps of the U. S. Army. He was a member of the Masonic Order and the American Legion. Surviving are three sisters and three brothers.

Harold E. Koepke, M.D., Cadiz; State University of Iowa College of Medicine, Iowa City, 1928; member of the Ohio State Medical Association and Fellow of the American Medical Association; aged 41; died December 18. A native of Iowa, Dr. Koepke practiced in Arvella, Pa., for a short time, going to Cadiz early in 1930. Dr. Koepke was health commissioner of Harrison County and legislative committeeman for the Harrison County Medical Society. He was an officer in the Medical Reserve Corps of the U. S. Army. Active in the life of his community, Dr. Koepke was a member of the American Legion, the Lions Club, and the Boy Scout's Committee. His widow, his mother, two sisters and three brothers survive.

John Keyser, M.D., Cincinnati; Cincinnati College of Medicine and Surgery, 1893; aged 76; former member of the Ohio State Medical Asso-

ciation and the American Medical Association; died December 9. A native of Luxembourg, Dr. Keyser spent most of his life in Cincinnati, where he practiced for 48 years. He was a member of the Knights of Columbus and the Eagles. Surviving are his widow and a daughter.

Lee Carr Laycock, M.D., Alexandria; Physio-Medical Institute, Cincinnati, 1882; aged 83; died December 14. Dr. Laycock first practiced in Taylorsville, and later located in Decatur, Brown County for 12 years. He then opened an office in Alexandria, continuing in active practice there for 44 years. He was a member of the Baptist Church, Royal Neighbors and the Modern Woodmen Lodge. His widow, two daughters and two sons survive.

Paul John Love, M.D., Greensboro, N. C.; Eclectic Medical College, Cincinnati, 1922; aged 42; died January 5. Dr. Love practiced in Fayetteville, Ohio, his birthplace, for several years. Later he was on the staff of the Richmond State Hospital, Richmond, Ind., and more recently was resident physician at a private sanatorium in Greensboro, N. C. Surviving are his widow, a daughter, a sister and three brothers.

Orlo L. Mapes, M.D., Lakeside; American Eclectic Medical College, Cincinnati, 1886; aged 80; died December 23. Dr. Mapes retired two years ago after having practiced in Lakeside for many years. His widow and a son survive.

John White McCammon, M.D., Cincinnati; Western Reserve University School of Medicine, Cleveland, 1921; aged 45; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; member of the American Academy of Orthopaedic Surgeons and the Clinical Orthopaedic Society; and diplomate of the American Board of Orthopaedic Surgery; died December 30. A native of Toledo, Dr. McCammon practiced in Cincinnati for nearly 15 years. He was assistant professor of surgery at the University of Cincinnati College of Medicine, and a member of the Sub-Committee on Workmen's Compensation of the Ohio State Medical Association. His widow, his parents and a brother survive.

Jones Riley McMillan, M.D., Cardington; Cincinnati College of Medicine and Surgery, 1895; aged 89; died December 13. Representing the third generation of physicians in the McMillan family, Dr. McMillan practiced in Cincinnati for 50 years, retiring four years ago. He was a former chairman of the Hamilton County Democratic Central Committee. Dr. McMillan was a member of the Batavia Masonic Lodge for 67 years. Surviving are three daughters.

Charles Epley Patterson, M.D., Fayette; Starling Medical College, Columbus, 1896; aged 66; member of the Ohio State Medical Association and Fellow of the American Medical Association; died January 3. Dr. Patterson practiced in Fulton County for 42 years. At various times he was a member of the Fayette village council, and had served as mayor. He was a member of the Methodist Church. His widow, a daughter, and a son, Dr. Ralph Patterson, survive.

Frank Joseph Savage, M.D., Cleveland; Western Reserve University School of Medicine, 1928; aged 38; member of the Ohio State Medical Association and Fellow of the American Medical Association; died December 10. Dr. Savage practiced in Cleveland for ten years. He was on the staff of Charity Hospital and was demonstrator in medicine at Western Reserve University School of Medicine. Dr. Savage was a lieutenant in the Medical Corps of the U. S. Army.

Walter Hamilton Snyder, M.D., Toledo; University of Michigan Medical School, Ann Arbor, 1891; aged 69; member of the Ohio State Medical Association, Fellow of the American Medical Association and the American College of Surgeons, member of American Board of Ophthalmology, Fellow of the American Academy of Ophthalmology and Otolaryngology, died December 29. A native of Scranton, Pa., Dr. Snyder located in Toledo shortly after graduation, specializing in eye, ear, nose and throat. Outstanding in his field, he was the first ophthalmologist in this country to perform the Elliott-Trephine operation for glaucoma, and one of the first to use the corneal microscope. Dr. Snyder was one of the first physicians in Toledo to interest the local profession in the use of X-ray. He contributed much to medical literature on the eye, and had addressed many medical societies both in Ohio and outside the state. In 1913 Dr. Snyder was appointed by Governor Cox to the Board of the Ohio Commission for the Blind, and in the early 1920's was made president of that organization, a post which he held for many years. Dr. Snyder was a militant leader for reforms and benefits for the blind. During his 48 years of practice, Dr. Snyder maintained an active interest in the affairs of medical organization. In 1907 he was president of the Toledo Academy of Medicine and in 1909 was president of the Ohio State Medical Association. He had also served on the Committee on Public Policy and the Medical Defense Committee of the Association. Dr. Snyder was a member of the staffs of Toledo, Flower and Lucas County Hospitals. He had a great interest in sports, being an ardent hunter and fisherman. A major portion of his estate has been dedicated to research in ophthalmology. Surviving are two sisters and a brother.

Alexander A. Smith, M.D., Dayton; Toledo Medical College, 1903; aged 70; former member of the Ohio State Medical Association and the American Medical Association; died December

29. Dr. Smith practiced in Dayton for 31 years. He was a member of the Masonic Order. Surviving are his widow, two sons and two sisters.

T. Wingate Todd, M.D., Cleveland; Victoria University of Manchester Medical School, Manchester, England, 1907; aged 54; member of the Ohio State Medical Association and the American Medical Association; Fellow of the Royal College of Surgeons, England; member of the American Association of Anatomists; died December 28. Dr. Todd was Henry Willson Payne Professor of Anatomy and Director of the Hamann Museum of Comparative Anthropology and Anatomy of Western Reserve University School of Medicine, and director of the Brush Foundation. A native of Sheffield, England, Dr. Todd came to Western Reserve University in 1912, after several years of distinguished teaching and clinical experience in the University of Manchester. Dr. Todd was world-renowned in his field, and a member of innumerable scientific societies. Surviving are his widow, a daughter, two sons and a sister.

Ulysses I. Tope, M.D., Lamartine; Ohio Medical University, Columbus, 1895; aged 69; died December 15. Dr. Tope practiced in Carroll County for 43 years. He was a member and former president of the County Board of Health and had also served on the local Board of Education. Surviving are his widow and two daughters.

Attorney General Opinions

Included in the opinions issued by Attorney-General Herbert S. Duffy December 20, 1938, were the following:

No. 3435—**Board of Health—Regulations.** (1) Orders or regulations adopted by a board of health of a city or of a general health district intended for the general public are required to be published in their entirety and not by title only. (2) Such orders and regulations when adopted as emergency measures become immediately effective and are not required to be published. (3) The board of health of a city or general health district may adopt orders and regulations by reference to the United States Public Health Service Milk Ordinance and Code and provide that the sale of milk products shall be regulated in accordance with the terms of such code.

No. 3440—**Public Officers—Serving in two capacities.** (1) No question of incompatibility of offices or violation of law arises when one person serves at the same time as member of the county child welfare board and member of a private welfare agency. (2) One person may not at the same time serve as budget commissioner and member of the county child welfare board as the duties of these offices make them incompatible.

Chicago Medico-Dental-Military Training Course, Feb. 26-March 11

The following announcement of particular import to medical, dental and military men and to those interested in these three professions was made recently by Major General Stanley H. Ford, commanding the Sixth Corps Area: The second Chicago Medico-Dental-Military Training Course will be held during the period February 26-March 11, 1939, in Chicago.

This joint meeting of the medical and military professions was initiated in Chicago last year and proved so successful that its continuance was decided upon.

With the full cooperation and assistance of such outstanding medical and dental institutions as: The University of Chicago Medical School; Rush Medical College; University of Illinois College of Medicine; Loyola University Medical School; Chicago College of Dental Surgery, Loyola University; Northwestern University Dental School; and the University of Illinois College of Dentistry; and with the coordination of army (regular and reserve) medical officers, the meetings will offer postgraduate work, clinics and lectures on medico-military subjects, with particular emphasis on the medical-dental phases during the forenoons and on the military phases during the afternoons.

Attendance is not restricted to those from the Chicago area but will include many from several states and covering a wide area. Last year individuals from fifteen states were in attendance. Medical Department and other Reserve officers will receive inactive status credits in connection with their military schools.

Inquiries from medical, dental and military men concerning any phase of the conference should be addressed to the Commanding General, Sixth Corps Area, Post Office Building, Chicago.

Public Health Lectures for Laity

"The Holden Lectures in Medicine", ninth annual series of free public health lectures, offered to the public under the joint auspices of The Academy of Medicine of Cleveland, the Albert Fairchild Holden Foundation of Western Reserve University and the Cleveland Medical Library Association, will be presented in the Allen Memorial Medical Library Auditorium, Adelbert Road at Euclid Avenue, Cleveland, on Sunday afternoons, February 12, February 26 and March 12. Speakers and subjects are: February 12—"Getting Ready for Married Life", Dr. Howard Dittrick; February 26—"Adjustments of Married Life", Dr. Neil T. McDermott; March 12—"The Swing Age Child", Dr. C. W. Wyckoff. Each program will begin at 3 P.M.. Doors will be opened at 2:30 P.M.

New List of Typing Stations for Pneumonia is Announced

In November, 1937, the State Department of Health arranged for the establishment of a training course in pneumococcus typing at Cincinnati General Hospital as part of the Department's pneumonia control program. An invitation was sent to hospital and clinical laboratories throughout the state asking for the names of technicians who might be interested in such training. To date approximately 52 persons have taken the course. Officials of the State Department of Health have announced that while it would be highly desirable to extend or continue this feature of the pneumonia control program, circumstances relating to funds as well as the training facilities are such that at the present time no further instruction is contemplated under the sponsorship of the Department.

Included among the facilities for pneumococcus typing throughout the state are the following stations whose personnel took the State Department of Health's special training course at Cincinnati General Hospital:

Adams County—Dr. O. K. Engelke, Health Dept., West Union.

Ashtabula County—Harold Smith, Medical Bldg., Ashtabula.

Athens County—Dr. Carl A. Frey, Sheltering Arms Clinical Laboratory, Athens.

Auglaize County—Dr. C. L. Baker, Cridersville.

Butler County—Miss Ann Ratz, Ft. Hamilton Hospital; Miss Bessie Keating, Mercy Hospital, Hamilton.

Columbiana County—Miss Eliz. Costello, City Hospital, East Liverpool.

Crawford County—Robert Beck, City Hospital, Bucyrus.

Cuyahoga County—Mrs. Lucille Guinn, City Hospital, Lakewood.

Darke County—Miss Virginia Stotler, City Hospital, Greenville.

Defiance County—Miss Margaret Fauster, Defiance Hospital, Defiance.

Fayette County—Dr. J. F. Wilson, Health Department, Washington C. H.

Franklin County—Mrs. G. A. Bole, Ohio Dept. of Health Laboratories; Dr. H. Drayer, City Health Dept.; G. B. Headley, Station Hosp., Ft. Hayes; Miss Marie Moorhead, University Hosp., Ohio State University, Columbus.

Gallia County—Paul Wheeler, Ohio Hospital for Epileptics, Gallipolis.

Greene County—Miss Dorothy C. Shaw, McClellan Hospital, Xenia.

Guernsey County—Dr. Reo M. Swan, The Swan Hospital, Cambridge.

Hamilton County—Dr. Wm. Moody, City Health Dept.; Sr. M. Norbert, Institutum Divi Thomae Athenaeum of Ohio, Mt. Washington, Cincinnati.

Hocking County—Miss Lucille Miller, Cherrington Hospital, Logan.

Holmes County—Miss Neva R. Pew, Joel Pomerene Memorial Hospital, Millersburg.

Jefferson County—Walter P. Kendall, Clinical Laboratory; James T. Smith, City Health Dept., Sr. M. Ursula, Gill Memorial Hospital, Steubenville..

Lawrence County—Miss Anna Corum, The Marting Hospital, Ironton.

Logan County—Mrs. Evelyn Barrett, Clinical Laboratory, Bellefontaine.

Lorain County—R. P. Fowler, County Health Dept., Oberlin; E. G. Curtiss, Health Dept., Elyria; Mrs. E. Smith, St. Joseph Hospital, Lorain.

Lucas County—Miss Irene Raskowski, St. Vincent's Hospital, Toledo.

Mahoning County—D. R. Mellon, City Health Dept.; Miss Helen Buehrle, Youngstown Hospital Association, Youngstown.

Marion County—Miss Louise Halbedel, City Hospital, Marion.

Meigs County—Mrs. Eloise Wilson, Clinical Laboratory, Pomeroy.

Mercer County—Miss LaDonna Hessian, Gibbons Hospital, Inc., Celina.

Miami County—Miss Gladys Milkwick, Stouder Memorial Hospital, Troy.

Montgomery County—Sr. Cleta Fiederlein, St. Elizabeth's Hospital, Dayton.

Muskingum County—Sr. Mary Berard, Good Samaritan Hospital, Zanesville.

Richland County—Miss Solomen, Mansfield General Hospital, Mansfield.

Sandusky County—Mrs. Ada Bacon, Memorial Hospital, Fremont.

Scioto County—Miss Evelyn Edgington, General Hospital, Portsmouth.

Shelby County—Miss Madelyn Greiner, Wilson Memorial Hospital, Sidney.

Stark County—Louis Katonak, City Health Dept., Canton; Miss Edna Rigdon, City Hospital, Massillon.

Summit County—Miss Kathryn Teeple, City Hospital; Miss Martha Andes, St. Thomas Hospital, Akron.

Trumbull County—Miss Juanita Hanna, City Hospital, Warren.

Printed copies of the above list may be obtained from the State Department of Health.

At present no state or Federal funds are available for the purchase of therapeutic serum. However, officials of the State Department of Health contemplate requesting the legislature for an appropriation to purchase serum for use in the treatment of indigent cases of pneumonia.

Buckeye News Notes

Bellevue—Dr. C. L. Harding, former district lieutenant-governor of Kiwanis Clubs, was the installing officer when the 1939 officers of the local Kiwanis Club were installed.

Bucyrus—The need of a new hospital in Galion was discussed by Dr. O. R. Kackley, secretary of the Crawford County Medical Society, at a recent meeting of the Rotary Club.

Cambridge—New officers of Swan Hospital staff are: Dr. A. G. Ringer, president; Dr. C. A. Craig, vice-president, and Dr. Reo Swan, secretary.

Cincinnati—Dr. Carl A. Wilzbach, city health commissioner, spoke on "Health and Group Living" at a recent meeting of the Dayton and Montgomery County Council of Parent-Teachers' Associations.

Cleveland—"Medical Follies of 1940" was the subject of a recent address by Dr. Walter G. Stern at a meeting of the Cleveland Heights Rotary Club.

Columbus—Dr. George P. Sims is president of the Benjamin Franklin Chapter of the Ohio Society of Sons of the American Revolution.

Conneaut—Dr. Perry R. Longaker is president of the local Kiwanis Club.

Dayton—Officers of Miami Valley Hospital Staff are: Dr. J. D. Fouts, chief; Dr. A. T. Bowers, assistant chief, and Dr. R. W. Corwin, secretary.

Delaware—Dr. Bruce B. Barber has been reappointed Delaware County health commissioner. Dr. George Y. Swickard is a new member of the board.

Dover—"Physiotherapy" was the subject of a recent address by Dr. David Allen at a district meeting of the Ohio State Nurses' Association.

East Liverpool—Dr. A. J. Knapp spoke on "The Human Eye" at a recent meeting of the Lions Club.

Elyria—Dr. R. H. McClure and Dr. A. S. McKitrick have been named as first members of the honorary surgical staff and Dr. G. E. French, the first member of the honorary medical staff, of Elyria Memorial Hospital.

Findlay—"Socialized Medicine" was the subject of an address made by Dr. O. P. Klotz, Councilor for the Third District of the Ohio State Medical Association, at a recent meeting of the Up-to-Date Club.

Fremont—Officers of Memorial Hospital Medical staff are: Dr. C. R. Wood, Port Clinton, president; Dr. T. R. Cunningham, Fremont, vice-president, and Dr. F. A. Visconti, Fremont, secretary.

Galion—Dr. R. M. Malone spoke on "Syphilis" at a recent meeting of the Kiwanis Club.

Hamilton—Dr. Mark Millikin recently addressed the Commercial Club at Wilmington.

Lima—Dr. L. LoCricchio spoke on "Cancer" at a recent meeting of the Wapakoneta Rotary Club.

Mansfield—"Pros and Cons of State Medicine" was the subject of an address by Dr. C. R. Damron at a recent meeting of the Kiwanis Club.

Middletown—Dr. Mabel E. Gardner spoke on "Medical Women in Times of War" at the fellowship dinner of the American Medical Women's Association held in Chicago recently.

Orrville—The reasons why the medical profession is opposed to socialized medicine were explained by Dr. Otto P. Ulrich at a recent meeting of the Rotary Club.

Port Clinton—Dr. C. R. Wood has been reappointed health commissioner of Ottawa County.

Portsmouth—Dr. O. D. Tatje is serving his 20th consecutive year as city health commissioner.

Salem—Officers of City Hospital Staff are: Dr. L. F. Derfus, president; Dr. Chester W. Dewalt, Columbiana, vice-president, and Dr. Guy E. Byers, Salem, secretary-treasurer. Dr. J. M. McGeorge, Salem, was named a member of the advisory board.

Springfield—Dr. C. S. Ramsey was recently honored by being appointed director-emeritus of the department of obstetrics of City Hospital, following his resignation after 36 years as head of that department.

Steubenville—The benefits of immunization were stressed by Dr. Leon M. Shulan at a recent P.T.A. meeting.

Van Wert—Dr. Chester A. Morgan has been reappointed city health commissioner.

Warren—A new powerhouse and laundry building will be constructed by St. Joseph's Riverside Hospital.

Wauseon—Officers of Detwiler Memorial Staff are: Dr. Howard J. Luxan, Montpelier, president; Dr. C. Harold Heffron, Metamore, vice-president, and Dr. Richard Sanderson, Wauseon, secretary-treasurer.

West Union—"The Care of Very Young Children" was the subject of a talk made by Dr. Otto K. Engelke, Adams County health commissioner, at a recent meeting of the local P.T.A.

Willoughby—A talk on "Venereal Diseases" was made by Dr. A. C. Mahan recently to the sociology classes of Willoughby High School.

Xenia—Dr. Gordon E. Savage has been appointed health commissioner of the newly combined Greene County and Xenia health district.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BROWN

Brown County Medical Society has re-elected the following officers for 1939: Dr. R. B. Hannah, Georgetown, president; Dr. George P. Tyler, Jr., Ripley, secretary and delegate; Dr. Hannah, alternate.—Geo. P. Tyler, Jr., M.D., secretary.

BUTLER

The following new officers were installed at a meeting of the Butler County Medical Society, Friday, December 16, at Hamilton: Dr. H. M. E. Lowell, Hamilton, president; Dr. Merle Flenner, Hamilton, vice-president; Dr. Vera Coombs Iber, Hamilton, secretary-treasurer; Dr. Lowell, legislative committeeman; Dr. Charles T. Atkinson, Middletown, delegate; Dr. D. M. Blizzard, Middletown, alternate.

Dr. Frank E. Stevenson, associate professor of pediatrics, University of Cincinnati College of Medicine, gave an illustrated lecture on "Scarlet Fever" at a meeting of the society, Thursday, January 12, at Hamilton.—Vera Coombs Iber, M.D., secretary.

FAYETTE

Officers of the Fayette County Medical Society for 1939 are: Dr. L. L. Brock, Washington C. H., president; Dr. Earl J. Powers, Washington C. H., vice-president; Dr. James F. Wilson, Washington C. H., secretary-treasurer; Dr. O. L. Wiseman, Jeffersonville, legislative committeeman; Dr. J. M. Harsha, Washington C. H., public relations committeeman; Dr. M. N. Reiff, Washington C. H., medical economics committeeman; Dr. Harsha, delegate; Dr. Paul S. Craig, Washington C. H., alternate.—James F. Wilson, M.D., secretary.

HIGHLAND

Dr. Charles W. Pavey, of the Department of Obstetrics, Ohio State University College of Medicine, Columbus, was guest speaker at a meeting of the Highland County Medical Society, Wednesday noon, January 4, at Hillsboro.—News clipping.

Officers of the society for 1939 are: Dr. J. C. Larkin, Hillsboro, president; Dr. J. D. McBride, Hillsboro, vice-president; Dr. W. B. Roads, Hillsboro, secretary-treasurer; Dr. Larkin, legislative committeeman; Dr. H. W. Chaney, Sugartree Ridge, delegate; Dr. J. H. Frame, Highland, alternate.—W. B. Roads, M.D., secretary.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during January:

January 10—"Management of Some Acute Contagious Diseases and Their Complications", by Dr. John A. Toomey, Cleveland.

January 17—Symposium on "Heart Disease in Children", under the auspices of the Heart Council of Cincinnati:

1. "Incidence of Organic Heart Disease in the Schools of Cincinnati", by Dr. Louise W. Rauh; 2. "A Review of the Cardiac Patients Observed in the Children's Heart Clinics of the General and Children's Hospitals", by Dr. Nina A. Anderson. 3. "The Arrhythmias of Childhood", by Dr. Robert A. Lyon. The discussion was opened by Dr. A. Graeme Mitchell.

January 24—"Fractures and Dislocations of the Cervical Vertebrae", by Dr. John A. Caldwell; "The Technique of Internal Fixation of Fractures of the Neck of the Femur", by Dr. Ralph G. Carothers, with discussion by Dr. Caldwell.

January 31—Hospital Night. Program of case reports arranged and presented by members of the staff of Jewish Hospital.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Dr. Roy W. Scott, professor of clinical medicine, Western Reserve University School of Medicine, Cleveland, gave an excellent address on the "Management of the Cardio-Vascular Diseases", at the annual banquet of the Clark County Medical Society, Wednesday night, January 11, at the Springfield Country Club. Dr. C. E. M. Finney, president of the society, presided at the banquet, which was attended by over 100 physicians. Guests included Dr. J. H. J. Upham, Columbus, dean of Ohio State University College of Medicine; Dr. Frank A. Hartman, Dr. Rollin R. Durant, Dr. Warren W. Hicks, Dr. John H. Mitchell, Columbus; Dr. Clifford J. Straehley, Dr. John H. Skavlem, Dr. Eugene B. Ferris, Dr. H. H. Shook and Dr. L. Howard Schriver, Cincinnati. Preceding Dr. Scott's address officers of the society for 1939 were installed.—G. M. Lane, M.D., secretary.

DARKE

Officers of the Darke County Medical Society for 1939 are: Dr. P. G. Lenhert, Arcanum, president; Dr. M. M. Kane, Greenville, vice-president; Dr. W. D. Bishop, Greenville, secretary-treasurer; Dr. C. J. Mills, Greenville, legislative committeeman; Dr. C. I. Stephen, Ansonia, delegate; Dr. C. F. Frankman, Greenville, alternate.

Dr. Lall G. Montgomery, pathologist at Ball Memorial Hospital, and president of the Academy of Medicine, Muncie, Indiana, spoke on "Uses and

Abuses of Some Common Laboratory Tests", at a dinner meeting of the society, Firday, January 20, at Cul-Mor Tea Room, Greenville.—W. D. Bishop, M.D., secretary.

GREENE

Dr. M. Tischer Horner, Dayton, gave a very complete and interesting lecture on "Diagnosis and Treatment of Jaundice", at a meeting of the Greene County Medical Society, Thursday, January 5, at Xenia. Dr. D. W. Hogue, Springfield, Councilor for the Second District of the Ohio State Medical Association, spoke on organization matters. The following chairmen of committees were appointed: Dr. H. C. Messenger, public relations; Dr. C. G. McPherson, medical economics; Dr. S. C. Ellis, public health; and Dr. F. C. Chambliss, membership. Dr. Gordon E. Savage, county health commissioner, gave the annual report of contagious diseases in the county, noting a high number of cases of diphtheria and an increase in tularemia.—Donald F. Kyle, M.D., secretary.

MIAMI

The annual joint meeting of the Miami and Shelby County Medical Societies was held at the Memorial Hospital, Piqua, Friday afternoon, January 6. Dr. Sidney McCurdy, Columbus, supervisor of the Medical Section, State Industrial Commission, discussed "Medical Problems Involved in Workmen's Compensation".—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. R. C. Markey spoke on "Rheumatoid Arthritis" at a meeting of the Montgomery County Medical Society, Friday evening, January 6, in the Auditorium of the Fidelity Medical Building, Dayton. Dr. R. C. Hochwalt discussed the orthopedic problems of the disease and Dr. H. W. Kendell, physio-therapy.

At a dinner meeting of the society, Friday evening, January 20, at St. Elizabeth Hospital, Drs. W. C. C. Cole and David C. Kimball, Detroit, spoke on "Studies in Neo-Natal Asphyxia". —Mildred E. Jeffrey, M.D., executive secretary.

PREBLE

Officers of the Preble County Medical Society for 1939 are: Dr. C. E. Newbold, Eaton, president; Dr. Von B. Barnhiser, Camden, vice-president; Dr. J. R. Williams, Eaton, secretary-treasurer; Dr. George W. Flory, Eaton, delegate; Dr. J. I. Nisbet, Eaton, alternate.—J. R. Williams, M.D., secretary.

SHELBY

Shelby County Medical Society has elected the following officers for 1939: Brent A. Welch, M.D., Sidney, president; Dr. J. W. Tirey, Anna, vice-president; Dr. E. P. Sparks, Jr., Sidney, secretary-treasurer; Dr. Lester C. Pepper, M.D., Sidney, legislative committeeman; Dr. Vernon W. Le Master, M.D., Sidney, public relations committeeman; Dr. Paul C. Bratten, Sidney, medical economics committeeman; Dr. C. C. Hussey, Sidney, delegate; Dr. A. B. Gudenkauf, M.D., Sidney, alternate.—E. P. Sparks, M.D., secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

ALLEN

Officers of the Academy of Medicine of Lima and Allen County for 1939 are: Dr. I. D. Baxter, Lima, president; Dr. O. S. Robuck, Gomer, president-elect; Dr. H. V. Parent, Lima, secretary; Dr. J. C. Weisenbarger, Lima, treasurer; Dr. Burt Hibbard, Lima, legislative committeeman; Dr. J. R. Tillotson, Lima, delegate; Dr. E. H. Hedges, Lima, alternate.—W. V. Parent, M.D., secretary.

AUGLAIZE

Auglaize County Medical Society has elected the following officers for 1939: Dr. E. F. Heffner, Wapakoneta, president; Dr. H. J. Gudenkauf, Minster, vice-president; Dr. Chas. C. Berlin, Wapakoneta, secretary-treasurer; legislative committee—Dr. T. A. Campbell, Wapakoneta, man; Dr. R. C. Hunter, Wapakoneta, and Dr. Carl W. Ekermeyer, New Bremen; public relations committee—Dr. T. A. Campbell, Wapakoneta, chairman; Dr. E. A. Gomolski, Minster, Dr. G. B. Faulder, Wapakoneta, Dr. Noble and Dr. Berlin; Dr. Noble, delegate; Dr. Hunter, alternate.—Chas. C. Berlin, M.D., secretary.

HANCOCK

Officers of the Hancock County Medical Society for 1939 are: Dr. B. F. Mowry, Findlay, president; Dr. Ralph E. Rasor, Bloomdale, vice-president; Dr. L. H. Goodman, Findlay, secretary; Dr. E. J. Thomas, Findlay, treasurer; Dr. E. E. Rakestraw, Findlay, legislative committeeman; Dr. John V. Hartman, Findlay, delegate; Dr. John M. Firmin, Findlay, alternate.—L. H. Goodman, M.D., secretary.

HARDIN

Hardin County Medical Society has elected the following officers for 1939: Dr. Don R. Printz, Ada, president; Dr. G. F. Moench, Mt. Victory, vice-president; Dr. John A. Mooney, Kenton, secretary-treasurer; Dr. F. M. Elliott, Ada, legislative committeeman; Dr. R. G. Schutte, Kenton, delegate; Dr. J. F. Holtzmuller, Forest, alternate. —John A. Mooney, M.D., secretary.

LOGAN

Officers of the Logan County Medical Society for 1939 are: Dr. F. Blair Webster, Bellefontaine, president; Dr. C. H. Thompson, W. Mansfield, vice-president; Dr. C. L. Barrett, Bellefontaine, secretary-treasurer; Dr. J. P. Harbet, Bellefon-

taine, legislative committeeman.—C. L. Barrett, M.D., secretary.

MARION

Dr. Donald D. Shira, Columbus, assistant secretary of the Ohio Public Health Association, spoke on "The History of Medicine in Ohio" at a meeting of the Marion Academy of Medicine, Tuesday, December 6, at the Marion City Hospital. Robert G. Paterson, Ph.D., Columbus, secretary of the Ohio Public Health Association, was a guest at the meeting.—R. G. McMurray, M.D., secretary.

MERCER

Officers of the Mercer County Medical Society for 1939 are: Dr. E. J. Willkie, Maria Stein, president; Dr. Charles P. Adkins, Coldwater, vice-president; Dr. Frank E. Ayers, Celina, secretary-treasurer; Dr. M. L. Downing, Rockford, legislative and public relations committeeman; Dr. J. T. Gibbons, Celina, medical economics committeeman; Dr. G. I. Scheetz, Rockford, delegate; Dr. Charles C. Henrie, Celina, alternate.—Frank E. Ayers, M.D., secretary.

SENECA

"Some of the More Common Orthopedic Problems" was the subject discussed by Dr. A. L. Bershon, Toledo, at a meeting of the Seneca County Medical Society, Thursday evening, January 12, at the Shawhan Hotel, Tiffin.

Officers of the society for 1939 are: Dr. John M. Leahy, Tiffin, president; Dr. G. H. W. Bruggemann, Fostoria, vice-president; Dr. Edmund F. Ley, Tiffin, secretary-treasurer; Dr. R. F. Machamer, Tiffin, legislative committeeman; Dr. G. W. Williard, Tiffin, medical economics committeeman; Dr. R. R. Hendershott, Tiffin, delegate; Dr. P. J. Leahy, Tiffin, alternate.—Edmund F. Ley, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

DEFIANCE

"The Management of Pneumonias" was the subject of a program presented by Lederle Laboratories at a dinner meeting of the Defiance County Medical Society, Wednesday, January 18, at Bradford Restaurant, Defiance. The program included motion pictures of typing, specific serum, oxygen therapy and complete treatment.

The society's officers for 1939 are: Dr. G. E. Winn, Defiance, president; Dr. Seth E. DeMuth, Hicksville, vice-president; Dr. E. P. Mitchell, Defiance, secretary-treasurer; Dr. George W. DeMuth, Sherwood, legislative committeeman; Dr. E. C. Wurst, Defiance, public relations committeeman; Dr. Winn, medical economics committeeman; Dr. D. J. Slosser, Defiance, delegate; Dr. P. B. Newcomb, Defiance, alternate.—E. P. Mitchell, M.D., secretary.

HENRY

Officers of the Henry County Medical Society for 1939 are: Dr. C. B. Geiger, Holgate, president; Dr. B. L. Johnson, Deshler, vice-president; Dr. J. R. Bolles, Napoleon, secretary-treasurer; legislative committee—Dr. H. F. Rohrs and Dr. C. M. Harrison, Napoleon, and Dr. J. H. Fiser, Malinta; public relations and medical economics committee—Dr. J. R. Bolles, Napoleon, Dr. C. G. Hissong, Hamler, and Dr. Fiser; Dr. J. J. Harrison, Napoleon, delegate; Dr. T. P. Delventhal, Napoleon, alternate.—J. R. Bolles, M.D., secretary.

LUCAS

The following programs were presented by the Toledo Academy of Medicine during January:

January 6—Annual Meeting, with election of officers.

January 13—Section of Pathology, Experimental Medicine and Bacteriology. "Prevention and Treatment of Postoperative Thrombophlebitis", by Dr. Virgil S. Counsellor, Mayo Clinic, Rochester, Minn.

January 20—Medical Section—"Surgery of the Biliary Tract", by Dr. Isidor S. Ravdin, professor of surgery, University of Pennsylvania School of Medicine, Philadelphia, Pa.

January 27—Surgical Section—"The Time List in the Treatment of Cervical Cancer", by Dr. O. E. Todd; "The Early Diagnosis of Brain Tumors", by Dr. Max T. Schnitker.—Bulletin.

OTTAWA

Ottawa County Medical Society has elected the following officers for 1939: Dr. A. S. Mack, Oak Harbor, president; Dr. W. R. Gibson, Oak Harbor, vice-president; Dr. C. R. Wood, Port Clinton, secretary-treasurer; Dr. H. J. Pool, Port Clinton, legislative committeeman; Dr. G. A. Boon, Oak Harbor, delegate; Dr. E. D. Schuiteman, Genoa, alternate.—C. R. Wood, M.D., secretary.

PAULDING

The following new officers have been elected by the Paulding County Medical Society: Dr. L. R. Fast, Paulding, president; Dr. R. J. Dillery, Paulding, vice-president; Dr. G. L. Doster, Paulding, secretary-treasurer; Dr. K. C. Evans, Payne, legislative committeeman; Dr. F. A. McCammon, Payne, public relations committeeman; Dr. T. P. Fast, Dr. E. Kohn, Dr. J. R. Heath, Grover Hill, medical economics committeemen; Dr. McCammon, delegate; Dr. Fred E. Spragens, Antwerp, alternate.—F. A. McCammon, M.D., retiring secretary.

PUTNAM

"What About the Patient?" was the subject of an address made by Dr. Fred M. Douglass, Toledo, member of the Special Coordinating Committee of the Ohio State Medical Association, at

a meeting of the Putnam County Medical Society, Tuesday, January 3, at Ottawa. Dr. Douglass explained in detail the working of the Toledo plan for furnishing medical care to the indigent and unemployed. He stated that this plan was adopted only after careful study of similar plans in Michigan and Canada, that it is meeting with marked success and that it is commended by physicians and patients alike. Chief among advantages of the plan are absence of political control over physicians and the protection of the patient in his right to choose his own physician, Dr. Douglass said.—H. N. Trumbull, M.D., correspondent for *The Journal*.

Officers of the society for 1939 are: Dr. W. B. Recker, Leipsic, president; Dr. E. Blackburn, Kalida, vice-president; Dr. Milo B. Rice, Pandora, secretary-treasurer; Dr. H. A. Neiswander, Pandora, and Drs. L. M. Piatt and J. R. Echelbarger, Ottawa, legislative committeemen; Dr. O. J. Fatum, Ottoville, delegate, and Dr. W. D. Hickey, Leipsic, alternate.—Milo B. Rice, M.D., secretary.

SANDUSKY

At a meeting of the Sandusky County Medical Society, November 17, at Fremont, Dr. W. H. Miffley, Toledo, presented a paper on "Treatment of Carcinoma of the Cervix Uteri". Dr. M. E. Goodrich, Toledo, spoke on "Treatment of Calcified Subacromial Bursitis by X-Ray", discussed by Dr. D. M. Stewart, Toledo.

Dr. A. L. Mack, Oak Harbor, presented Mead Johnson Company motion picture films of breech and mid-forceps delivery at a meeting of the society December 22, at Fremont.

New officers are: Dr. M. M. Riddell, Fremont, president; Dr. T. R. Cunningham, Fremont, vice-president; Dr. E. C. Swint, Fremont, secretary-treasurer; Dr. C. J. Wehr, Bellevue, legislative committeeman; Dr. C. I. Kuntz, Fremont, public relations committeeman; Dr. E. W. Baker, Fremont, medical economics committeeman; Dr. Kuntz, delegate; Dr. R. K. Evans, Lindsey, alternate.—T. R. Cunningham, M.D., retiring secretary.

WILLIAMS

Williams County Medical Society has elected the following officers for 1939: Dr. Russell K. Ameter, Bryan, president; Dr. M. R. Kittredge, Bryan, vice-president; Dr. W. E. McKee, Bryan, secretary-treasurer; Dr. H. J. Luxan, Montpelier, legislative committeeman; Dr. H. W. Wertz, Montpelier, delegate; Dr. E. R. Jacka, Bryan, alternate.—J. Fred Smith, M.D., retiring secretary.

WOOD

Officers of the Wood County Medical Society for 1939 are: Dr. F. V. Boyle, Bowling Green, president; Dr. E. A. Powell, North Baltimore, vice-president; Dr. R. N. Whitehead, secretary-treasurer; Dr. D. R. Barr, Grand Rapids, legislative committeeman; Dr. Paul F. Orr, Perrysburg, delegate; Dr. Earl O. Foltz, North Baltimore, alternate.

At a meeting of the society, Thursday evening, January 19, at the Women's Club, Bowling Green, Dr. J. L. Stifel, Toledo, discussed the slow fevers, including typhoid, paratyphoid, Malta fever and tularemia, their diagnosis and treatment.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

At a meeting of the Ashtabula County Medical Society, Tuesday, January 10, at Conneaut, Dr. Ralph Bacon, Erie, Pa., gave a very instructive talk on Carcinoma of the Cervix Uteri".—C. T. Risley, M.D., secretary.

New officers of the society are: Dr. Perry R. Longaker, Conneaut, president; Dr. H. K. Lynne, Jefferson, vice-president; Dr. C. T. Risley, Conneaut, secretary-treasurer; Dr. R. B. Wynkoop, Ashtabula, legislative committeeman; Dr. Wyncoop, delegate; Dr. J. F. Docherty, Conneaut, alternate.—A. A. DeCato, M.D., retiring secretary.

CUYAHOGA

The following programs were presented by The Academy of Medicine of Cleveland during January:

January 4—Obstetrical and Gynecological Section.—"Twelve Year Review of Cesarean Sections at St. Ann's Hospital", by Dr. Paul Duffy; "Abortion with Streptococcus Septicemia, Cured with Sulphanilamide and Subsequent Laparotomy (Case Report)", by Dr. James Wolfstein; "Review of 3,000 Consecutive Deliveries at Mt. Sinai Hospital", by Dr. M. Garber.

January 6—Clinical and Pathological Section. "Cerebral Thrombosis Due to Bradycardia", by Dr. Harold Feil; "The Use of the Intestinal Tube in Intestinal Obstruction", by Dr. Paul M. Glenn; "The Effect of Protamine Insulin in Bronze Diabetes", by Dr. Max Miller and Dr. Lewis H. Bronson; "Case Report—Pheochromocytoma of the Adrenal Gland", by Dr. James J. Joelson; "Hemangioma of the Spine", by Dr. Maxwell Harbin; "Congenital Diaphragmatic Hernia", by Dr. John W. Holloway.

January 11—Medical Practice Section. "Some Observations of Interesting Cases of Hematologic Diseases", by Dr. Franklin R. Miller and Dr. Harley A. Williams; "Oscillometry in the Diagnosis of Peripheral Arteriosclerotic Disease", by Dr. Lawrence N. Atlas.

January 13—Experimental Medicine Section and Cleveland Section of the Society for Experi-

mental Biology and Medicine. "The Source of the Retrograde Blood Flow in Chronically Occluded Coronary Arteries", by Dr. J. J. Thornton and Dr. Donald E. Gregg; "The Hemoglobin Content of Human Blood", by Dr. V. C. Myers and Dr. Helen M. Eddy; Symposium on Fever Therapy, arranged by the Department of Pathology, Ohio State University, College of Medicine, Columbus—(a) "Change in the Peripheral Nerve Produced by Artificially Induced Fever", by Dr. H. W. Weaver, Wayne University; (b)—"Changes in the Parenchymatous Organs Produced by Artificially Induced Fever", by Dr. E. von Haam, Columbus, and Dr. T. T. Frost, Winston-Salem, N. C.; (c) "Pathogenesis of Hemorrhage in Artificially Induced Fever", by Dr. S. J. Wilson and Dr. C. A. Doan, Columbus; (d) "The Influence of Hyperpyrexia on Cell Equilibria in Blood and Blood-Forming Tissue", by Dr. Doan and Dr. M. M. Hargraves, Mayo Clinic.

January 17—Military Section. "The Control of Epidemic Intestinal Diseases in the Theatre of Operations", by Lt. Col. Walter F. Hamilton. —Bulletin.

GEAUGA

Officers of the Geauga County Medical Society for 1939 are: Dr. Lucy Stone Hertzog, Chardon, president; Dr. F. S. Basquin, Chardon, vice-president; Dr. Isa Teed Cramton, Burton, secretary-treasurer; Dr. W. C. Cory, Chardon, legislative committeeman; Dr. Hertzog, public relations committeeman; Dr. W. A. Reed, Burton, medical economics committeeman.—Isa Teed Cramton, M.D., secretary.

HURON

Huron County Medical Society has elected the following officers for 1939: Dr. J. C. Steiner, Willard, president; Dr. L. H. Whisler, Willard, vice-president; Dr. A. D. Robertson, Willard, secretary-treasurer; Dr. George F. Linn, Norwalk, legislative committeeman; Dr. R. L. Morse, Norwalk, public relations committeeman; Dr. L. H. Hayhurst, Greenwich, medical economics committeeman; Dr. Steiner, delegate; Dr. O. J. Nicholson, Norwalk, alternate.—A. D. Robertson, M.D., secretary.

LORAIN

Dr. Curtis F. Garvin, Cleveland, spoke on "Complications of Sulfanilamide Therapy", at a dinner meeting of the Lorain County Medical Society, Tuesday, January 10, at Hotel Antlers, Lorain.

At a meeting of the society December 13, the following new officers were elected: Dr. Benjamin F. Carlson, Lorain, president; Dr. Albert J. Kirchner, Lorain, vice-president; Dr. L. H. Trufant, Oberlin, secretary-treasurer; legislative committee—Dr. Isadore L. Levin, Lorain; Dr. Geo. D. Nicholas, Elyria, and Dr. Taylor Smith, Avon; Dr. S. V. Burley and Dr. Chas. R. Meek, Lorain, delegates; Dr. Waite Adair, Lorain, and Dr. E. J. Heinig, Vermilion, alternates.—L. H. Trufant, M.D., secretary.

MEDINA

Officers of the Medina County Medical Society for 1939 are: Dr. J. K. Durling, Wadsworth, president; Dr. John L. Jones, Medina, vice-president; Dr. H. T. Pease, Wadsworth, secretary-treasurer; Dr. R. L. Mansell, Medina, legislative committeeman; public relations committee—Dr. John L. Beach, Seville, Dr. E. C. Bell, Lodi, Dr. Morris Wilderom, Medina, and Dr. Pease; Dr. Wilderom, delegate; Dr. H. G. Lehrer, Wadsworth, alternate.—H. T. Pease, M.D., secretary.

TRUMBULL

Trumbull County Medical Society has elected the following officers for 1939: Dr. Paul N. Mutschmann, president; Dr. Paul C. Gauchat, vice-president; Dr. A. H. Seiple, secretary-treasurer; Dr. R. D. Herlinger, legislative committeeman and delegate; Dr. J. D. Knox, alternate—all of Warren.—A. H. Seiple, M.D., secretary.

Sixth District

(COUNCILOR: WM. M. SKIPP, M.D., YOUNGSTOWN)

HOLMES

Officers of the Holmes County Medical Society for 1939 are: Dr. Neven P. Stauffer, Killbuck, president; Dr. A. J. Earney, Millersburg, secretary-treasurer; Dr. A. T. Cole, Millersburg, legislative committeeman; Dr. Stauffer, delegate; Dr. J. C. Elder, Millersburg, alternate.—A. J. Earney, M.D., secretary.

MAHONING

"Uncle Sam, M.D.", was the subject of an address made by Dr. Jonathan Forman, Columbus, editor of *The Ohio State Medical Journal*, at the annual banquet of the Mahoning County Medical Society, Tuesday evening, January 17, at the Youngstown Club.—C. A. Gustafson, M.D., correspondent for *The Journal*.

Officers of the society for 1939 are: Dr. Wm. M. Skipp, president; Dr. R. B. Poling, president-elect; Dr. John Noll, secretary; Dr. E. H. Nagel, treasurer; Dr. O. J. Walker, chairman, legislative committee; Dr. W. K. Stewart, chairman, public relations committee and medical economics committee; Dr. Stewart, Dr. Gordon G. Nelson and Dr. Walker, delegates; Dr. Dean A. Nesbit, Dr. Edw. J. Reilly, and Dr. Ivan C. Smith, alternates; Dr. L. G. Coe, Dr. Paul J. Fuzy and Dr. Claude B. Norris, censors; Dr. H. E. Patrick, editor of *The Bulletin*.—John Noll, M.D., secretary.

PORTAGE

Dr. J. I. Kendricks, Cleveland, talked on "Fractures Frequently Seen in General Practice", showing many slides, at a meeting of the Portage County Medical Society, Thursday night,

January 5, at the office of Dr. Harris Wendorf, Ravenna. Dr. Wm. M. Skipp, Youngstown, Councilor for the Sixth District, explained the proposed expansion program of the State Association.—E. J. Widdecombe, M.D., secretary.

STARK

The following program was presented at the Annual Meeting of the Stark County Medical Society, Thursday evening, January 12, at the Elk's Club, Canton: "Rheumatic Heart Disease in Childhood", by Dr. Ray D. Schirack; "The Blood Bank", by Dr. Max Shaweker; "The Differential Diagnosis of Cough", by Dr. George L. King, Jr.

The society elected the following officers for 1939: Dr. C. N. Clark, Canton, president; Dr. J. Edwin Purdy, Canton, president-elect; Dr. Clair B. King, Canton, secretary-treasurer; Dr. John M. Van Dyke, Canton, chairman legislative committee; Dr. R. K. Ramsayer, Canton, chairman, public relations committee; Dr. Emerson Gillespie, Canton, chairman, medical economics committee. Delegates—Dr. George F. Zinninger, and Dr. Van Dyke, Canton; Dr. George N. Wenger, Massillon. Alternates—Dr. L. L. Frick, North Canton; Dr. A. W. Warren, Canton, and Dr. Perry F. King, Alliance.—Clair B. King, M.D., secretary.

SUMMIT

The following officers of the Summit County Medical Society for 1939 were installed at a meeting of the society, Tuesday evening, January 3, at the Mayflower Hotel, Akron: Dr. Donald B. Lowe, president; Dr. William A. Parks, president-elect; Dr. Alexander S. McCormick, secretary-treasurer; Dr. J. R. Shoemaker, chairman, legislative committee; Dr. H. J. Gordon, chairman, public information committee; Dr. E. A. Freeman, chairman, medical relations committee; Dr. R. T. Allison, chairman medical economics committee; Dr. C. R. Steinke, Dr. R. T. Allison, Dr. H. H. Musser and Dr. Lowe, delegates; Dr. F. B. Roberts, Dr. J. G. Kramer, Dr. W. A. Hoyt, alternates.—A. S. McCormick, M.D., secretary.

WAYNE

Dr. H. N. Cole, Cleveland, was guest speaker at a meeting of the Wayne County Medical Society, Friday evening, December 2, at Wooster. —News clipping.

Officers of the society for 1939 are: Dr. F. C. Ganyard, Wooster, president; Dr. L. A. Yocum, Wooster, vice-president; Dr. R. C. Paul, Wooster, secretary-treasurer; Dr. John B. Beeson, Dr. E. W. Douglas and Dr. W. A. Fritz, Wooster, legislative committeeman; Dr. O. P. Ulrich, Orrville; Dr. H. J. Mitchell, Fredericksburg, and Dr. W. A. Morton, Wooster, public relations committeeman; Dr. Paul, delegate; Dr. L. A. Adair, Wooster, alternate.—R. C. Paul, M.D., secretary.

Seventh District

(COUNCILOR: C. W. KIRKLAND, M.D., BELLAIRE)

CARROLL

Officers of the Carroll County Medical Society for 1939 are: Dr. Jos. D. Stires, Malvern, president; Dr. S. L. Weir, Minerva, vice-president; Dr. Carl A. Lincke, Carrollton, secretary-treasurer; Dr. J. H. Murray and Dr. Stires, legislative committeemen; Dr. Lincke, public relations committeeman; Dr. Lewis W. Cellio, Carrollton, medical economics committeeman; Dr. Cellio, delegate; Dr. Murray, alternate.—Carl A. Lincke, M.D., secretary.

COLUMBIANA

Columbiana County Medical Society held its regular monthly meeting, Tuesday, December 13, at Lisbon. Dr. George L. King, Jr., Alliance, spoke on "The Diagnosis of the Cough". The following officers were elected for 1939: Dr. Roy C. Costello, East Liverpool, president; Dr. C. J. Maxwell, Wellsville, vice-president; Dr. J. W. Schoolnic, East Liverpool, secretary-treasurer; Dr. John A. Fraser, East Liverpool, delegate; Dr. Paul H. Beaver, Leetonia, alternate.—J. W. Schoolnic, M.D., secretary.

COSHOCTON

Officers of the Coshocton County Medical Society for 1939 are: Dr. T. F. McAllister, Coshocton, president; Dr. H. H. Schwindt, West Lafayette, vice-president; Dr. J. D. Lower, Coshocton, secretary-treasurer; Dr. E. M. Wright, Coshocton, legislative committeeman; Dr. J. C. Briner, West Lafayette, public relations committeeman; Dr. J. G. Smailes, Coshocton, delegate; Dr. Floyd Wm. Craig, Coshocton, alternate.—J. D. Lower, M.D., secretary.

JEFFERSON

The annual election of officers of the Jefferson County Medical Society was held December 21 at Steubenville, with the following result: Dr. F. B. Harrington, Steubenville, president; Dr. Howard W. Brettell, Brilliant, vice-president; Dr. John P. Smarella, Steubenville, secretary-treasurer; Dr. John A. Bradley, Steubenville, medical defense committeeman; Dr. E. J. C. Sander, Steubenville, legislative committeeman; Dr. S. J. Podlewski, Steubenville, delegate; Dr. Smarella, alternate; Dr. Ben J. Casey, Toronto, and Dr. F. J. Denning and Dr. A. C. Sunseri, Steubenville, censors.—John P. Smarella, M.D., secretary.

TUSCARAWAS

Officers of the Tuscarawas County Medical Society for 1939 are: Dr. G. I. Goodrich, Dover, president; Dr. J. W. Calhoon, Uhrichsville, vice-president; Dr. David H. Allen, Dover, secretary-treasurer; Dr. J. A. McCollam, Uhrichsville, legislative committeeman and chairman, public

relations committee; Dr. Calhoon, delegate; Dr. B. Russell, New Philadelphia, alternate.—David H. Allen, M.D., secretary.

At a meeting of the society, Thursday, January 12, in New Philadelphia, Dr. G. F. Sackett, a former member of the society, and Dr. Harry L. Farmer, both of Cleveland, furnished the program. Dr. Sackett discussed "Spontaneous Pneumothorax", and Dr. Farmer, "Urography". It was a good program and a good meeting. Arrangements were made to furnish the local newspapers with proper publicity on medical subjects through the county health commissioner, Dr. Chester A. Bennett.—James A. McCollam, M.D., chairman, publicity committee.

Eighth District

(COUNCILOR: E. R. BRUSH, M.D., ZANESVILLE)

ATHENS

Athens County Medical Society has elected the following officers for 1939: Dr. J. L. Webb, Nelsonville, president; Dr. C. N. Sanders, Millfield, vice-president; Dr. C. R. Hoskins, Athens, secretary-treasurer; Dr. H. T. Phillips, Athens, and Dr. E. LeFever, Glouster, legislative committeemen; Dr. B. R. Goldsberry, Athens, and Dr. W. H. Hyde, Nelsonville, public relations committeemen; Dr. N. Hill, Nelsonville, and Dr. J. R. Sprague, Athens, medical economics committeemen; Dr. Goldsberry, delegate; Dr. Sprague, alternate.—C. R. Hoskins, M.D., secretary.

FAIRFIELD

Officers of the Fairfield County Medical Society for 1939 are: Dr. Frank H. Stukey, president; Dr. M. E. Nichols, vice-president; Dr. C. W. Brown, secretary-treasurer; Dr. C. G. Axline, legislative committeeman; Dr. L. H. Hamilton, public relations committeeman; Dr. L. E. Stenger, medical economics committeeman; Dr. R. H. Smith, delegate; Dr. C. H. Hamilton, alternate, all of Lancaster.—C. W. Brown, M.D., secretary.

LICKING

At a meeting of the Licking County Medical Society at Newark, Tuesday, December 20, the following new officers were elected: Dr. William N. Nye, president; Dr. Louis A. Mitchell, vice-president; Dr. Donald R. Sperry, secretary-treasurer; Dr. George A. Gressle, delegate; Dr. J. Fleek Miller, alternate; Dr. Geo. W. Sapp, legislative committeeman, all of Newark.—D. R. Sperry, M.D., secretary.

MORGAN

Officers of the Morgan County Medical Society for 1939 are: Dr. C. V. Davis, Pennsville, president; Dr. Edgar Northrup, McConnelsville, secretary; Dr. C. E. Northrup, McConnelsville, legislative committeeman; Dr. A. H. Whitacre, Chesterhill, delegate.—E. G. Rex, M.D., retiring secretary.

MUSKINGUM

Dr. Wynne M. Silbernagel and Dr. R. S. Fidler, Columbus, presented the program at a meeting of the Muskingum County Academy of Medicine, Wednesday, January 4, at the University Club, Zanesville.—News clipping.

WASHINGTON

The following new officers were elected by the Washington County Medical Society at Marietta, December 14: Dr. A. Howard Smith, president, and Dr. David Sauer, secretary.—S. E. Edwards, M.D., retiring president.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

GALLIA

The following Gallipolis physicians are officers of the Gallia County Medical Society for 1939: Dr. N. A. Martin, president; Dr. Homer B. Thomas, vice-president; Dr. Milo Wilson, secretary-treasurer; Dr. Charles E. Holzer, legislative committeeman; Dr. Homer B. Thomas, public relations committeeman; Dr. Leo C. Bean, medical economics committeeman; Dr. W. Lewis Brown, delegate; Dr. S. L. Bossard, alternate.—Milo Wilson, M.D., secretary.

HOCKING

Hocking County Medical Society has elected the following officers for 1939: Dr. C. T. Grattidge, Laurelville, president; Dr. Letha Starr Boocks, Logan, vice-president; Dr. M. Halstead Cherrington, Logan, secretary-treasurer; Dr. John S. Cherrington, Logan, legislative committeeman; Dr. Grattidge, delegate; Dr. A. K. Smith, Logan, alternate.—M. H. Cherrington, M.D., secretary.

JACKSON

At a meeting of the Jackson County Medical Society, Thursday, December 15, at Wellston, the following officers were elected for 1939: Dr. Gwyn A. Perry, Jackson, president; Dr. John L. Frazer, Wellston, secretary-treasurer; Dr. Harold W. Gillen, Wellston, legislative committeeman; Dr. W. B. Taylor, Jackson, public relations committeeman; Dr. Mel D. Smith, Wellston, medical economics committeeman; Dr. J. S. Hunter, Jackson, delegate; Dr. J. J. McClung, Jackson, alternate.—John L. Frazer, M.D., secretary.

LAWRENCE

Officers of the Lawrence County Medical Society for 1939 are: Dr. V. V. Smith, president; Dr. H. S. Allen, vice-president; Dr. W. A. French, secretary-treasurer; Dr. T. E. Miller and Dr. J. D. Swango, legislative committeemen; Dr. C. A. Casey, Dr. F. R. Stewart, Dr. Cosper

Burton and Dr J. W. Payne, public relations committeemen; Dr. C. E. Vidt, Dr. Wm. W. Lynd and Dr. Charles H. Gallagher, medical economics committeemen; Dr. Casey, delegate; Dr. G. G. Hunter, alternate. Dr. Payne is located in Willow Wood. All other officers and committeemen practice in Ironton.—V. V. Smith, M.D., secretary.

MEIGS

Officers of the Meigs County Medical Society for 1939 are: Dr. E. F. Maag, Pomeroy, president; Dr. P. A. Jividen, Rutland, vice-president; Dr. Robert R. Boice, Pomeroy, secretary-treasurer; Dr. Byron Bing, Pomeroy, legislative committeeman; Dr. F. M. Cluff, Middleport, medical economics committeeman; Dr. Jividen, delegate; Dr. Bing, alternate.—Robert R. Boice, M.D., secretary.

SCIOTO

Dr. R. I. Brashear, Columbus, spoke on "Common Rectal Complaints", at a meeting of the Hempstead Academy of Medicine of Scioto County, Monday evening, January 9, at Portsmouth General Hospital.—W. M. Singleton, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, COLUMBUS)

CRAWFORD

"Head Injuries, Diagnosis and Treatment", was the subject discussed by Dr. Harry E. LeFever, Columbus, at a meeting of the Crawford County Medical Society, Monday night, January 9, at the Elks Home, Bucyrus.

Officers of the society for 1939 are: Dr. W. G. Carlisle, Bucyrus, president; Dr. C. J. Griebling, Galion, vice-president; Dr. O. R. Kackley, Galion, secretary-treasurer; Dr. R. L. Solt, Bucyrus, correspondent; Dr. M. L. Helfrich, Galion, medical defense committeeman; Dr. C. H. King, Bucyrus, delegate; Dr. K. H. Barth, New Washington, alternate; Dr. A. E. Loyer, New Washington, censor; Dr. Carlisle and Dr. John S. Kiess, Bucyrus, legislative committeemen.—O. R. Kackley, M.D., secretary.

DELAWARE

Officers of the Deleware County Medical Society for 1939 are: Dr. Floyd V. Miller, Delaware, president; Dr. D. S. James, Delaware, vice-president; Dr. M. S. Cherington, Delaware, secretary-treasurer; Dr. A. R. Callander and Dr. Emerson V. Arnold, Delaware, and Dr. Kendall Kennedy, Ashley, legislative committeemen; Dr. George T. Blydenburgh, Dr. George D. Lowry and Dr. Bruce Barber, Delaware, public relations committeemen; Dr. Dorrance S. Cowles and Dr. James G. Parker and Dr. M. W. Davies, Delaware, medical economics committeemen; Dr. Blydenburgh, delegate; Dr. Kennedy, alternate. —M. S. Cherington, M.D., secretary.

FRANKLIN

The following programs were presented by the Columbus Academy of Medicine during January:

January 9—"Progress in Medicine", by Dr. H. M. Clodfelter; "Progress in Obstetrics", by Dr. Wynne M. Silbernagel.

January 23—"Progress in Pediatrics", by Dr. John E. Brown, Jr.; "Progress in Surgery", by Dr. George M. Curtis.

January 30—Section in General Medicine. Program by pupils of the State School for the Blind and inspection of the school's hospital.—Bulletin.

KNOX

Officers of the Knox County Medical Society for 1939 are the following Mt. Vernon physicians: Dr. Robert L. Eastman, president; Dr. Julius Shamansky, vice-president; Dr. John C. Drake, secretary-treasurer; Dr. James F. Lee, legislative committeeman; Dr. F. C. Anderson, delegate; Dr. Shamansky, alternate.—John C. Drake, M.D., secretary.

PICKAWAY

Dr. W. B. Morrison, Columbus, was guest speaker at a meeting of the Pickaway County Medical Society, Friday noon, January 6, at Circleville.—News clipping.

Officers of the Pickaway County Medical Society for 1939 are: Dr. D. V. Courtright, president; Dr. H. D. Jackson, vice-president; Dr. B. N. Coers, secretary-treasurer; Dr. E. L. Montgomery, Circleville, legislative committeeman; Dr. Jackson, delegate; Dr. A. D. Blackburn, alternate, all of Circleville.—B. N. Coers, M.D., secretary.

Grant for Research Announced

Announcement has been made of a grant by The Commonwealth Fund of New York City in the amount of $8,360 to be expended through the Institute of Pathology of Western Reserve University. This sum is to support studies in the chemistry of immunity. Work has been started by Dr. E. E. Ecker, associate professor of immunology of the school. During the past two years he has been investigating the chemical changes involved in the development of immunity against disease. His studies thus far have been concerned with the chemistry of complementary activity of the blood and mechanisms by which it was brought about. Little work has been done in this field and it is believed that new discoveries may lead to significant developments in the knowledge and control of infectious disease.

Middletown—Colored scenic motion pictures taken while he was en route to the American Medical Association meeting at San Francisco last June, were shown by Dr. Hyman Helfman at a recent meeting of the Civitan Club.

The Physician's Bookshelf

Pathology of Diabetes. By Shields Warren, M.D., *Lee & Febiger, Philadelphia,* $4.75. Since its first appearance Dr. Warren's book has been accorded top ranking position among discussions of this interesting subject. The monograph now makes its second appearance, thoroughly revised and better than ever.

Microbiology and Public Health. By William B. Sharp, M.D., professor of Bacteriology and Preventive Medicine at Texas. *Mosby, St. Louis,* $4.50. From the medical college of the University of Texas comes this excellent textbook and laboratory manual for a course in microbiology as it relates to public health.

Our Common Ailment; Constipation, Its Cause and Cure. By Harold Aaron, M.D., Consultant to Consumers Union, Inc. *A Union Publication.* $1.50. The Consumers Union tells its members and readers how to save money by avoiding exploitation through fancy packages, unnecessary services, and intensive advertising campaigns and how therefore to buy on the basis of merit. This book gives a good clear explanation of constipation and the carthartic habit and then divides laxatives in the kind you must not use, the kind that you may at times but ought not to use, and finally the kind that if you insist will do the least harm. Interest is sustained by letting the reader in on how simple are the ingredients and how inexpensive this type of pill is to manufacture. All in all, an excellent book which should do good in helping to break up the sale of millions of dollars worth of these remedies which are not needed by their purchasers.

The Heart in Pregnancy. By Julius Jensen, M.D., assistant professor of clinical medicine, Washington University School of Medicine; assistant physician to Barnes Hospital; physician to St. Louis City and St. Louis Maternity Hospitals. *Mosby, St. Louis,* $5.50. To fully appreciate and evaluate this book one should perhaps be a cardiologist and a statistician, as well as an obstetrician. But without all of these qualfications, we were impressed with the monumental character of the work. The author has set out to review the state of our knowledge concerning the heart in pregnancy, and to determine what conclusions would seem to be indicated by the accumulated facts. He has made a comprehensive review of the domestic and foreign literature from Civil War times to the present, and then set down his results in an orderly and useful manner. There is a section on functional disturbances and one on organic heart disease in pregnancy. A tremendous amount of material has been digested and classified, and careful statistical tables prepared. The author draws certain conclusions, using his own expert knowledge to evaluate the material. It is a most excellent and useful piece of work, and one that seems to me to cover every phase of the subject.—Charles W. Pavey, M.D.

The New-Born Infant. By Emerson L. Stone, M.D., Yale Medical School. *Lea & Febiger, Philadelphia,* $3.00. Now we have a manual on the limited field of "obstetrical pediatrics". It comes to us in a thoroughly revised second edition. It covers the nursing care, modified feeding, birth injury, dietary disorders, infections, and disorders of the special systems, and closes with a chapter on the premature infant.

Health, Hygiene, and Hooey. By W. W. Bauer, M.D. *Bobbs-Merrill, Indianapolis,* $2.50. For a good discussion of the exaggerated claims and exploitation of simple things at a fancy price because of the cellaphane wrapper and cute package in pep foods, vitamins, laxatives, and cosmetics you are referred to the popular work from A.M.A. headquarters. There is an excellent chapter which debunks the physical culture movement when it gets out of bounds. In the opinion of the reviewer, we have overlooked a field here which if organized medicine would occupy with something like the British "keep fit" movement could be used to break down prejudices against us as a group more effectively than any other one effort. There is also an excellent defense of the 1937 position of the A.M.A. and that remember, dear reader, is yours and mine.

Feminine Hygiene in Marriage. By A. F. Niemoeller, M.A. *Harvest House, New York,* $2.00. The author of American Encyclopedia of Sex has produced a new work advising married women

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about themselves. This book is just what its title indicates. No information about contraconception is given in it. It tells the lay reader how to keep herself healthy so far as her sex organs are concerned.

Young Doctor Galahad. By Elizabeth Seifert. *Dodd, Mead, New York*, $2.50. Elizabeth Seifert, who before her marriage worked in a hospital, brings to her prize-winning novel an intimate knowledge of a small mid-western city. In this novel which won the $10,000 Dodd, Mead Prize she tells the story of doctors good and bad living in society which maintained dollars uppermost in the mind of everyone. She draws an accurate picture of our problems and then divorcing them from the rest of society makes a pretty good case for medical cooperatives. The book is recommended for your reading not because it is a solution of our problems but a good story strictly "up our alley".

Clinical Laboratory Methods and Diagnosis. By R. B. H. Gradwohl, M.D., St. Louis. *Mosby, St. Louis*, $12.00. In the second edition of his book on clinical pathology, Dr. Gradwohl has given us a complete work of reference for the practical and useful laboratory tests. Only those that are practical and in current use are included. In this book of 1,607 pages, we find a complete text on clinical pathology including the contributions of Prof. Kouri of Cuba on Parasitology and tropical medicine covering nearly 300 pages; over 100 pages of new material on hematology; special sections on post-mortem technique, tissue cutting and staining, preparation of museum specimens, toxicologic technique, the detection of crime by laboratory methods. In short, this book is all that is required with which to run a laboratory offering complete service.

The Troubled Mind. By C. S. Blumel, M.D., Denver, Colorado. *Williams and Wilkins, Baltimore*, $3.50. Anyone who reads this book on nervous and mental disorders will feel that he has profited. It is written simply and clearly. Repetition in many brief case records may tire the average medical reader, but serves the useful purpose of driving home the lesson of the work, i.e., what the patient may do for himself.

Tell Me the Truth, Doctor. By Irwin I. Lubowe. *Dorrance, Philadelphia*, $1.50. Another of the better small books on sex hygiene and the venereal disease problem has just appeared. Written in the form of questions and answers, it covers the subject adequately for its purpose.

Mortal, Be Proud. By Pendleton Hogan, *Ives Washburn, New York*, $2.50. Because of the activity of a doctor's frivolous wife, this book is brought to your attention. Dr. Keith has been indiscreet enough to tell his wife about the hero. This breach of ethics serves as a vital thread in a story which is handled skilfully and whose characters appear to your reviewer as real human beings.

Endocrine Therapy in General Practice. By Elmer L. Sevringhaus, University of Wisconsin. *The Year Book Publishers, Inc., Chicago*, $2.75. The developments in the field of the ductless glands are coming so fast that most any book on the subject is likely to be just a little out of date by the time it is off the press. Professor Sevringhaus realizing this has brought out in one small volume all of the facts necessary for the recognition of endocrine disorders, as well as that for the use of endocrine preparations in their treatment. He has accomplished his purpose admirably and the result is worth a place in every physician's working library.

Man and His Body. By Howard W. Haggard, M.D., Yale University. *Harpers, New York.* $4.00. With the present flood of medical books for the layman, most of which are badly written, it comes as a pleasant surprise to meet one that is accurate and yet understandable. It can be recommended in the highest terms. In it, the layman will easily understand sections on medical terminology that will make all of his reading along medical lines ever so much easier.

Dr. Bradley Remembers. By Francis Brett Young. *Reynal and Hitchcock, New York*, $2.75. Francis Brett Young, himself a physician, has the



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faculty of not only creating his characters but of supplying them with plot which gradually becomes infused in their blood and bones. His new novel is an excellent example of this. It is a record living through most of the developments of modern medicine. It is dedicated to Lloyd George "Whose invalidity insurance act gave greater dignity and security to the general practitioner in 1913". It is recommended for your reading not only as a good story but because it presents a sympathetic picture of English Health Insurance about which we all need as clear a picture as we can get.

Human Pathology. Fifth Edition. By Howard T. Karsner, M.D., *Lippincott, Philadelphia*, $10.00. Ohio may well be proud of this contribution to the teaching of pathology from the Pathologic Institute of the Western Reserve University. It is especially recommended because in addition to presenting the facts in this science it also contains discussions of debated and intricate subjects in such a manner as to give the reader a clear understanding of the points at issue.

Urology. By Daniel N. Eisendrath, M.D., and Harry C. Rolnick, M.D., both of Chicago. *Lippincott, Philadelphia*, $10.00. This book comes to us in its fourth edition. The revision makes it complete and up to date in every way. It stands as one of the better books on the subject and one which is more instructive to the medical man in any field than most of the others, while not neglecting the things which the specialist wants in his book.

The Technique of Contraconception. By Frederick C. Holden, M.D. *Williams and Wilkins, Baltimore.* Price 50 cents. The National Medical Council on Birth Control is quite anxious that an authoritative discussion of all methods of contraconception be available for physicians and medical students and hence they sponsor a fifty-page pamphlet which is brief but complete.

Practice of Medicine by Jonathan Meakins of McGill University. *Mosby, St. Louis*, $12.50. A one-volume practice which comes out with its second edition within two years speaks for itself. This one owes much of its popularity to the fact that it sticks pretty close to that which is known as contrasted with that which is believed. The changes over the first edition are largely amplifications which teaching experience has shown would make the book more helpful.

Physical Diagnosis. By Richard C. Cabot, M.D., and F. Dennette Adams of Boston. *William Wood, Baltimore*, $5.00. Thousands of us physicians obtained our basic knowledge of physical diagnosis from Cabot's text and so we always welcome a new edition. The new twelfth comes now with all new illustrations—400 in number—and a completely rewritten text. Among the new sections are those on history taking, bronchial stenosis, data on the liver, the peripheral vascular system, and joint and neurological examinations.

The Stone That Stopped. By Kenneth R. McAlpin. *Revell, New York*, $1.50. To all who like to read stories by doctors about physicians I should like to recommend this first novel by a New York physician. It is the story of a young physician who took his profession very seriously indeed.

Doctor, I Salute. By Emilie C. Conklin, *823 College St., Fort Wayne, Ind*, $1.00. It is rare indeed to find a book of poems mostly about things medical and dedicated to the medical profession. This makes an excellent little gift to another physician and maybe you can get one for yourself if you just hint for it. I have gained solace from it at a time when it was badly needed.

CLASSIFIED ADVERTISEMENTS

Rates 50 cents per line, payable in advance. Minimum charge of $1.00 for each insertion. Price covers the cost of remailing answers. Forms close 16th of the month preceding publication.

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At present, quantitative determination of vitamin B1 necessarily requires the use of one of the several bioassay methods available for that purpose. None of these is entirely satisfactory (1, 2). Perfection of a chemical method for quantitative measurement of thiamin in foods would add greatly to our knowledge of its occurrence in nature, as well as permit more comprehensive studies of factors which might influence the stability of vitamin B1 in foods. We have a relative paucity of such data relating to vitamin B1 when the available information on vitamin C is considered.

It should also be stated that the synthesis of thiamin—which is now produced on a commercial basis—has already provided the clinician with a most useful diagnostic tool. Administration of the pure vitamin in cases of suspected thiamin deficiency, with notation of the therapeutic response, constitutes the most trustworthy means of detecting avitaminosis B1. After the diagnosis has been confirmed and the immediate deficiency corrected by administration of thiamin, it is desirable that future adequate supply of vitamin B1 be obtained through dietary readjustments (1).

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(1) 1938. J. Amer. Med. Assn. 110, 727.
(2) 1938. Ibid. 111, 927.
(3)a. 1936. J. Nutrition 11, 383.
b. 1936. J. Amer. Diet. Assn. 12, 231.
(4)a. 1932. J. Nutrition 5, 307.
b. 1932. Ind. Eng. Chem. 24, 457.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-fifth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.

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The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

Openings in Navy Medical Corps are Announced; Examinations on May 8

The Medical Corps of the United States Navy offers a number of internships and commissions to graduates of Class "A" medical schools who have completed or are about to complete an internship in a civilian hospital. Examinations will begin on May 8, 1939. Applications should be on file at least one month prior to that date.

Qualified candidates who have completed internships in civilian hospitals and who successfully pass the competitive examination will be commissioned as Assistant Surgeons with the rank of Lieutenant (junior grade) and assigned to the Naval Medical School, Washington, D. C., for a postgraduate course of instruction prior to their assignment to sea or foreign shore duty.

Candidates must be United States citizens between the ages of 21 and 32 years at the time of appointment, and pass a physical and professional examination. The physical requirements comprise the following: Height—66 to 76 inches, inclusive; robust physique and development; weight—proportionate to age and height; hearing—normal; vision—not less than 12/20 each eye unaided by glasses and capable of correction to 20/20; color perception—normal; teeth—not less than 20 vital teeth, of which there must be four opposed incisors and four opposed molars.

Officers of the rank of Lieutenant (junior grade) without dependents receive compensation of $2,699 per year, while those with dependents receive $3,158 per year. There are additional cash allowances.

Further information can be obtained by writing the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

Columbus—New staff officers of White Cross Hospital are: Dr. John E. Hoberg, president; Dr. M. E. Reeder, vice-president, and Dr. Robert E. Young, secretary-treasurer.

Portsmouth—Dr. C. L. Ferguson is president of the newly-formed Portsmouth Hospital Service Association, Inc.

Symposium at Harvard

A symposium on the "Public Health Significance of the Virus and Rickettsial Diseases" will be given by the faculty of the Harvard University Medical School and the School of Public Health at Boston, June 12-17. Lectures will be given on etiology, epidemiology and methods of control, along with clinics and demonstrations. The fee for the course is $25, payable at any time up to June 12. Enrollment should be arranged before June 1 as facilities are limited. The lectures will be published later in a single volume which will be sent to each person registered. Further information and a copy of the program may be obtained by writing to the Secretary of the School of Public Health, Harvard University, 55 Shattuck Street, Boston, Mass.

Dr. Karsner Feted on Birthday

In recognition of Dr. Howard T. Karsner's sixtieth birthday, January 6, and the completion of his twenty-fifth year as professor of pathology at Western Reserve University School of Medicine, former students, assistants, colleagues and friends presented him with an oil portrait of himself at a tea held in the Institute of Pathology. On the same day at a luncheon held at the Cleveland Club, his colleagues on the faculty of medicine presented him with signed scroll.

Sandusky—Damage estimated at between $3,500 and $4,000 was done by a recent fire at Memorial Hospital.

Shelby—Dr. E. L. Jackson, former Perryville physician, spoke on "State Medicine" at a recent meeting of the Perrysville Women's Club, the Stillman-Kelley Club and the Mother's Club.

Xenia—Dr. E. L. J. Robinson, Cincinnati, has been appointed resident physician at the Ohio Soldiers' and Sailors' Orphans' Home, effective next July.

Orrville—Dr. George H. Irvin has been re-elected chairman of the Orrville District committee of the Boy Scouts of America.

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American Board of Anesthesiology: An affiliate of the American Board of Surgery. Written examination, April 8 in various cities. Oral examination, St. Louis, May 13-14, Sec., Dr. Paul M. Wood, 745 Fifth Avenue, New York.

American Board of Dermatology and Syphiology: St. Louis, May, if sufficient examinations by Feb. 15 to warrant holding examination. Sec., Dr. C. Guy Lane, 416 Marlboro St., Boston.

American Board of Internal Medicine: Written examinations will be held in various parts of the United States, Feb. 20. Sec., Dr. William S. Middleton, 1301 University Ave., Madison, Wis.

American Board of Obstetrics and Gynecology: Written examination and review of case histories of Group B applicants will be held in various cities of the United States and Canada, Feb. 4. General examination for all candidates (Groups A and B) will be given in St. Louis, May 15-16. Applications must be filed not later than sixty days prior to date of examination. Sec., Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh (6).

American Board of Ophthalmology. Written examinations will be held in various cities March 15 and August 9. Oral examinations, St. Louis, May 15; Chicago, October 6. Applications to take the written examination March 15 must be filed with the secretary by Feb. 15. Sec., Dr. John Green, 6830 Waterman Ave., St. Louis, Mo.

American Board of Otolaryngology: St. Louis, May 12-13, and Chicago, Oct. 6-7. Sec., Dr. W. P. Wherry, 1500 Medical Arts Bldg., Omaha.

American Board of Pathology: Richmond, Va., April 8-9. Sec., Dr. F. W. Hartman, Henry Ford Hospital, Detroit.

American Board of Pediatrics: Cincinnati, Nov. 14-15. Appointments must be made before July 14. Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Ill.

American Board of Psychiatry and Neurology: Dr. Walter Freeman, 1028 Connecticut Ave., N.W., Washington, D. C.

American Board of Radiology: St. Louis, May 11-14. Sec., Dr. Byrl R. Kirklin, 102-110 Second Ave., S. W., Rochester, Minn.

American Board of Urology: Sec., Dr. Gilbert J. Thomas, 1009 Nicollet Ave., Minneapolis.

National Board of Medical Examiners: Parts I and II. Medical centers having five or more candidates desiring to take the examination, Feb. 13-15. Ex. Sec., Everett S. Elwood, 225 S. 15th St., Philadelphia.

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A.M.A. Reviewer Puts New Book About Health Insurance on the Pan

Among the newer investigations of socialized medical schemes abroad is that made by Dr. Douglass W. Orr and Jean Walker Orr and used as a basis for their recent book, "Health Insurance with Medical Care: The British Experience", published by Macmillan Company, New York.

Doubtless this book will be cited many times in the near future by proponents of socialized medicine in this country. Therefore, we are "lifting" from the December 10, 1938, issue of *The Journal of the American Medical Association*, the following review of the book, which review points out a goodly number of "bugs" in the way Orrs have handled the subject:

An entertaining style and numerous personal illustrations and observations make this book easy reading and illuminative of many sides of the problem of medical care in England. There is also a full treatment of the health activities in England largely based on the "Report on the British Health Services" by P E P (Political and Economic Planning) which presents a much more rounded picture than has been given in previous discussions.

The one contribution which the reader has a right to expect from the first extensive work on this subject by an American physician is an evaluation of the medical service given under health insurance. There is an elaborate attempt to give such an evaluation but it can scarcely be said to be successful.

The key to the entire attitude of the book is found in the statement concerning the sources of information. The authors state that they "arrived well armed with introductions to Big Names in English medicine" but that when they talked with an official of the British Medical Association and showed him their list he told them to "use them, but they aren't typical" and added "Let me give you names of men who are in general practice and who have insurance panels; they know the system inside and out." The authors congratulate themselves that "Thus Dr. Hill steered us around a common pitfall". The naiveté of this observation is revealing to any one who has undertaken research in Europe concerning social institutions—he is always met by persons who are anxious to show him around and to guide him to the "proper" source of information; these are often persons who will present the facts that will most surely support the system. That is clearly what happened to the authors of this book.

One of their first informants said he had never "heard of any one getting favors from the doctors or otherwise taking advantage of the scheme". It must have required careful isolation to keep from finding persons who have heard of such things, because they are complained of in official documents and in medical journals and are topics of conversation almost everywhere. In spite of being so carefully guarded, the investigators seem to have run into some of this information, for they say "Some doctors may be hoodwinked or cajoled into certifying patients as incapable of work when in reality they should not be certified; some may find it profitable to be

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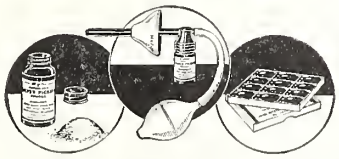
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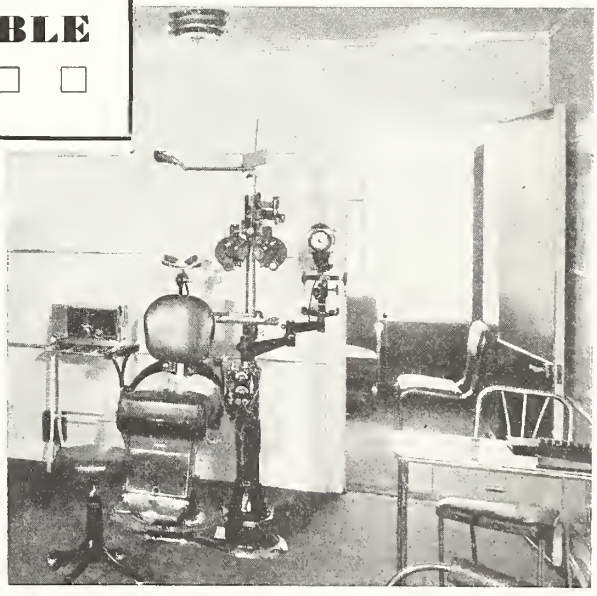
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known as an 'easy doctor.'" Of "sick visitors" we are told that "protection of funds against malingerers is the sole motive" of their visits. The familiar statement that few visits are made by regional medical officers "to inquire into excessive prescribing" and "in only six cases were fines imposed" fails to tell of the continuous flood of letters that are sent out by these regional medical officers politely and mildly warning physicians against such prescribing, and of course nothing is said of the many complaints in official reports, including those of the Ministry of Health, of the excessive prescribing as the result of the efforts of the physician to satisfy the demands of the patient for what British physicians in their own journals frequently admit are unnecessary medicines.

We are informed that "those who assert . . . that N. H. I. has increased the burden of sickness or dodged its responsibility by shifting it to the voluntary hospitals are misrepresenting the facts" (page 85). Yet we are told only two pages earlier that one investigator "found several two to three hundred bed hospitals with waiting lists of five to six hundred each". It must have been difficult to ride along the roads of England and not see the repeated appeals for financial aid for hospitals and not to be told continuously that this was largely due to the increased burden created by national health insurance.

Perhaps the sharpest criticism which can be directed against the authors is that they base their main arguments as to the good quality of the medical service on the statments of patients. Certainly no physician in this country would accept the fact that a quack or distributor of nostrums can produce thousands of testimonials to the efficiency of his services or of the panacea sold as proof that these were of value to the patient. Yet that is essentially the sort of evidence which is offered here. Certainly, any physician undertaking an experiment with any method of treatment would be expected to produce vital statistics as one measure of the success of his plan. This measure is almost entirely omitted. The statement that "in Britain national concern over a maternal mortality rate which nevertheless averages considerably lower than that of the United States has provoked vigorous action" is not justified in view of the fact that the maternal mortality rate for England was 41.1 per thousand, for Wales 55.7 and for Scotland 63.7, as an average for the years 1924-1933 (Report on Maternal Mortality in Wales Ministry of Health, London, 1937) while, in the United States, Rhode Island, Wisconsin, Minnesota and several other states show a rate approximately the same as that of England and nearly all the states at all comparable as to climate and racial conditions show rates lower than Wales or Scotland (Vital Statistics—Special Reports 5:43 [March 1] 1938, Department of Commerce, Bureau of the Census, Washington, D. C.) The impression is conveyed that a 40 per cent decline in the death rate during the last forty years in London is in some way related to sickness insurance. The decline in the United States has been even greater, without sickness insurance.

The authors quote "one of the most authoritative persons we interviewed" as concluding that "a panel of 2,500 is not too many for a doctor who has also some private practice". The statistics presented by the British Medical Association in a recent discussion of the capitation rates

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of payment for physicians showed that a little over five combined office and house calls per insured person were required annually. A panel of 2,500 would require 12,500 such services a year, or about forty for each working day. Considering that other studies of the British health insurance system have shown that these services are much more numerous in certain seasons than in others, we gain a rather peculiar idea of the standard of good service which the authors must have had in view. If we were to use their own figures, which are as much in error as some of their conclusions, this calculation would show much worse conditions, because they quote one of their medical authorities who thinks that panel patients average about ten visits a year. It is strange that authors who say so much about the thoroughness of their investigation and publish so long a list of persons interviewed and so extensive a bibliography did not check these statements with available official statistics.

The bibliography itself requires some little attention. The list of "pamphlets and reports" consulted omits the "Report by the Government Actuary on an Examination of the Sickness and Disablement Experience of a Group of Approved Societies in the period 1921-27" and also the "Report on Incapacitating Sickness in the Insured Population of Scotland during the year 1st July 1934 to 30th June 1935." Is it possible that this omission is due to the fact that these official reports contradict many of the conclusions of the book as to the character of the service given? The entire bibliography is principally noteworthy for its complete omission of a considerable number of books that have been published in Great Britain criticizing health insurance.

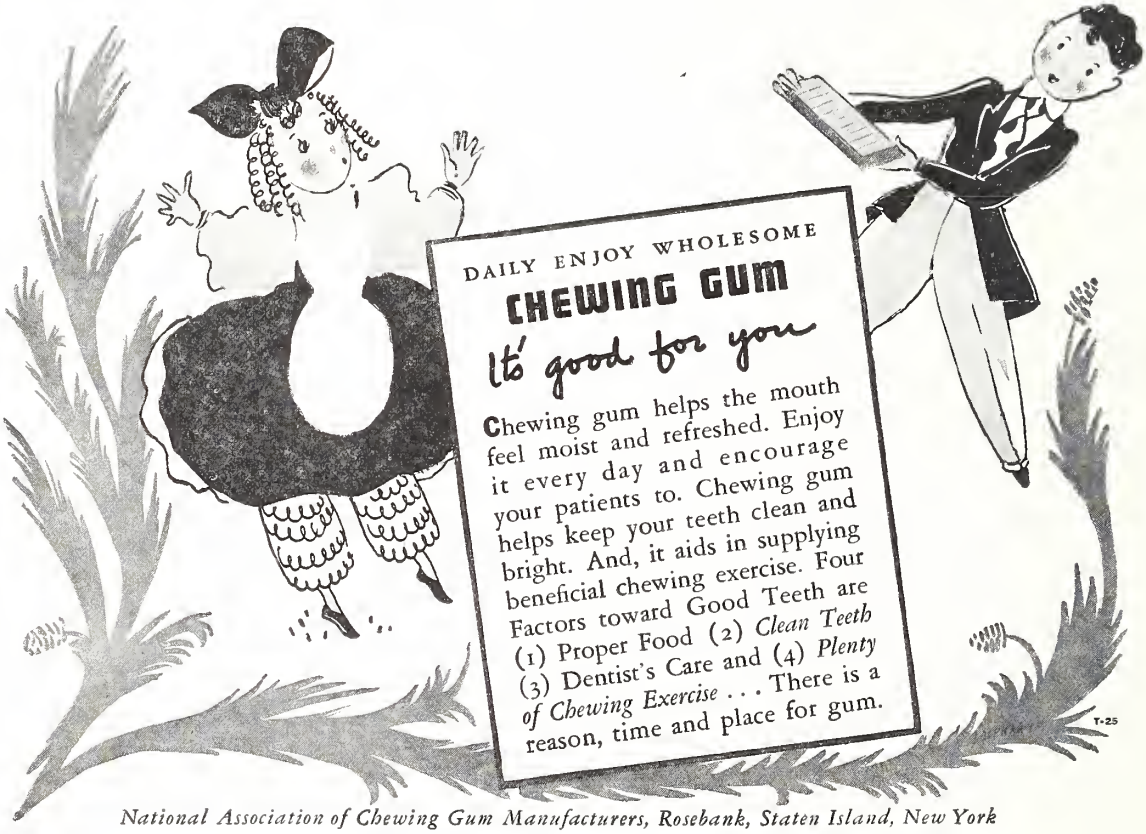
There is frequent reference to the way in which disease is supposed to be prevented by early attendance under sickness insurance. No mention is made of Scottish and British reports which complain that immunization for diphtheria lags behind American standards. The authors could have found much information contradicting their statements as to this feature of British health insurance by an examination of the "First Lecture of a London Postgraduate Course" on "Preventive Treatment and the General Practitioner" contained in the Supplement to the *British Medical Journal* for April, 1938, as well as in numerous other publications favorable to health insurance. The difficulty which it is claimed existed in finding any opponents or antagonistic critics might have been overcome by a consultation of the correspondence columns of the *British Medical Journal* and the London *Lancet*.

Finally, the attempt to show that British health insurance conforms to the "ten principles" of the American Medical Association is a heavy strain on both facts and logic.

Columbus—Dr. Albert J. Enderlin was recently elected president of the city board of health.

Dayton—"Recognition and Treatment of Cancer" was the subject of an address made by Dr. H. H. Wagner at a recent meeting of the Beaver Creek P.T.A.

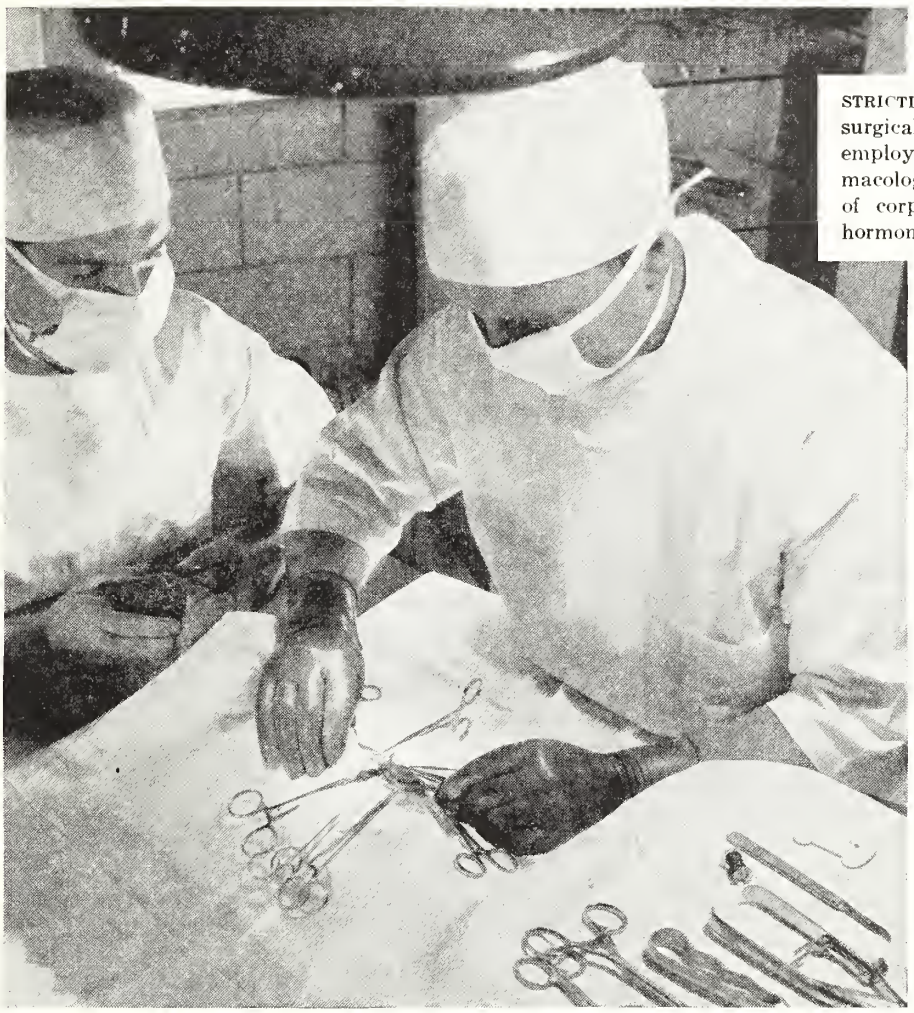
East Liverpool—Dr. John A. Murphy, city health commissioner, explained the purposes of a proposed city health ordinance at a recent meeting of the Kiwanis Club.



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American Public Health Association Agrees With Policies of A.M.A.; Newspaper Articles Misleading

Articles which appeared in the press at the time of the recent meeting of the American Public Health Association at Kansas City gave the impression that action was taken regarding proposed medical and health legislation that was in conflict with the official policy of the American Medical Association.

Judging from a letter submitted to the editor of *The Journal of the American Medical Association* by Dr. Arthur T. McCormack, Louisville, retiring president of the American Public Health Association, and published in the November 19 issue of *The Journal of the A.M.A.*, the newspaper articles conveyed the wrong impression.

Dr. McCormack's letter read in part as follows:

"I have just read the interesting editorial on page 1770 of *The Journal* of November 5 and also the news item on page 1775 with regard to the action of the American Public Health Association at its sixty-eighth annual meeting at Kansas City, Mo., October 25-28. Every one in attendance at the meeting was very much distressed at the total misconception of the attitude and action of the association by the public press, but we are much more disturbed because of the failure by *The Journal* to understand this action. The resolutions speak for themselves. The following resolution was written by Dr. Abel Wolman, the distinguished sanitary engineer of Baltimore, who is president of the association, and was unanimously adopted on motion of Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service:

"'The American Public Health Association records its appreciation of the participation in its deliberations during this annual meeting week of Dr. Irvin Abell, President of the American Medical Association. It records with pleasure its agreement with the approval in principle, at a recent special session of the House of Delegates of the American Medical Association, of the content of the National Health program presented by the Interdepartmental Committee to the National Health Conference. The association pledges its continued cooperation and support to the American Medical Association in the translation of this policy into action.'

"There was no difference of opinion expressed in the Governing Council, which corresponds with the House of Delegates of the American Medical Association; the resolution with regard to the Report of the Technical Committee on Medical Care as published in *The Journal* expressed exactly the unanimous feeling of the Governing Council. There was not a single expression made in favor of so-called health insurance and there was no difference of opinion between the medical and lay members of the association. The action

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☐ Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245

☐ Laryngoscope, 1935, XLV, 149-154

☐ N. Y. State Jour. Med., 1935, 35-No. 11, 590

☐ Laryngoscope, 1937, XLVII, 58-60

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was unanimous, the consideration was as constructive and on as high a plane as that of the memorable special session of the American Medical Association in Chicago, and the practical agreement between the American Medical Association and the American Public Health Association should be emphasized, rather than the studied effort to create the impression that there was a division of opinion.

"I am sorry that you and every other thoughtful member of the medical profession could not have been present at this meeting, where those who specialized in public health found themselves in practically complete accord with the splendid statement made by Dr. Irvin Abell as President of the American Medical Association.

"Following the adoption of the resolution, and the precedent set by the American Medical Association, the following committee was appointed to confer with the Interdepartmental Committee, the American Medical Association, the American Dental Association, the National Organization of Public Health Nurses, the Conference of State and Territorial Health Officers and other agencies: Drs. Abel Wolman, president of the association, as chairman; J. N. Baker of Alabama; Louis I. Dublin, vice president of the Metropolitan Life Insurance Company of New York; Harry S. Mustard of New York; John L. Rice of New York; Felix J. Underwood of Mississippi, and myself. Drs. E. S. Godfrey, president-elect, and Reginald M. Atwater, executive secretary of the association, are ex-officio members.

"As you know, Dr. Baker, Dr. Underwood and I are members of the House of Delegates of the American Medical Association. The chairman of the Committee on Resolutions was Dr. A. J. Chesley of Minnesota, who is secretary of the Conference of State and Territorial Health Officers and a member of the Committee on Study of Medical Care of the American Medical Association.

"I desire respectfully to submit that those of us interested in the preservation of the integrity and traditions of American medicine can serve it and the American people better by emphasizing the essential unity of all branches of the medical and allied professions in support of the constructive sections of the National Health Program, and in the practically unanimous objection to compulsory health insurance, than by reemphasizing the captious objections raised by individuals in the various organizations."

Youngstown—Radio talks sponsored by the Mahoning County Medical Society during December were: "Your Doctor and You", by Dr. J. L. Scarnecchia, December 16; and "Have a Safe and Happy Christmas", by Dr. L. K. Reed, December 23.

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Hyperparathyroidism

HAROLD F. KOPPE, M.D.

THOUGH the effects of hypo-parathyroidism have been known since 1909 when McCallum and others established that parathyroid insufficiency was the cause of postoperative tetany, it has only been in recent years that certain bone, kidney and biochemical changes have been shown to be due to hyperparathyroidism.

In Vienna, Mandil in 1925 removed a parathyroid adenoma in a case of osteitis fibrosa cystica with prompt clinical improvement. Collip,[1] the same year, did much to stimulate investigation of parathyroid overactivity by extracting one of the hormones of the parathyroid glands. Using this new extract (Parathormone) Jaffe and Bodansky[2] experimentally produced bone changes in dogs and guinea-pigs similar to those found in osteitis fibrosa cystica. DuBois[3] reported, "a case of osteitis fibrosa cystica with evidence of hyperactivity of the parathyroid bodies". With the establishment of the fact that this disease of the bones was a manifestation of hyperparathyroidism, numerous other cases were soon reported in the literature. It, however, remained for Albright[4] to point out that bone disease is not necessarily associated with clinical hyperparathyroidism. Cases of osteitis fibrosa cystica, as originally described by Von Recklinghausen, though rare, present no great diagnostic difficulty. But since the disease can exist without any demonstrable bone changes its recognition may be difficult. Hyperparathyroidism has been considered by many as synonymous with osteitis fibrosa cystica and no doubt many cases have not been recognized due to the absence of clinical evidence of bone disease. Since the establishment of the fact that a diagnosis can be made without any evidence of osteitis fibrosa cystica, it is felt that the disease is not as uncommon as formerly supposed.

The Author

Dr. Koppe, Dayton, Ohio, is a graduate of Ohio State University College of Medicine, 1916; associate member American College of Physicians; member of the Association for the Study of Internal Secretions; member of medical staff, Miami Valley Hospital, Dayton, Ohio.

The maintenance of the calcium and phosphorus equilibrium of the body fluids is the recognized function of the parathyroid hormone. Hyperparathyroidism or over production of this hormone is usually caused by an adenoma of one of the parathyroid glands. Although not as common as the adenoma, a diffuse hyperplasia of all glands may produce the same clinical picture.[5, 6] This overproduction effects the calcium and phosphorus equilibrium, producing an increased mobilization of the calcium in the body fluids, with increased calcium and phosphorus losses in the urine, kidney changes and frequently bone changes.

BIOCHEMICAL CHANGES

Calcium is constantly being taken into the body and is constantly being excreted by the kidneys and intestinal tract, with an added loss during pregnancy through the placenta and lactating breast. In a normal individual, regardless of the intake, the calcium content of the body fluids remains the same. In hyperparathyroidism the calcium and phosphorus balance is upset in the body

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fluids and both calcium and phosphorus may be extracted from the bones. The calcium in the blood is increased from a normal of from 9 to 11 mg. per cent to as high as 20 mg. per cent. The serum phosphorus is decreased from the normal of 3 to 4 mg. per cent to as low as 1.5 mg. per cent, the usual findings being nearer normal than the extremes given. There is an increased loss of both calcium and phosphorus in the urine and an inversion of the normal ratio of calcium excretion in the urine and feces. Normally 70 per cent to 90 per cent of the excreted calcium is found to be in the feces and 10 per cent to 30 per cent in the urine. This ratio is reversed due to the enormous amount of calcium passing out from the body fluids through the kidneys. There is a negative calcium balance, the out-put exceeding that of the in-take when on a normal or subnormal calcium containing diet. Therefore, in a classical case of hyperparathyroidism the serum calcium is increased and the serum phosphorus is decreased, with a marked increase of both calcium and phosphorus in the urine. The exceptions to this will be considered later in the discussion.

Plasma phosphatase, the enzyme that is the index of osteoblastic activity, is increased in all cases in which the osseous system is involved. Although the phosphatase is increased in other regenerative bone diseases, its determination is important in differentiating hyperparathyroidism from other diseases of bone where there is no osteoblastic activity, for example, senile osteoporosis. The plasma phosphatase may be normal in hyperparathyroidism because the bones are not involved in every case. But if the bones are involved, the phosphatase is either increased or the diagnosis is in error.

Metastatic calcification is a natural sequence of a high serum calcium and high urinary calcium and its deposition has no limitations but is most commonly found in the renal pelvis and parenchyma and in the arteries.

BONE CHANGES

The chief effect of hyperparathyroidism on the skeleton is decalcification. Calcium is removed from the bones due to some change in the relationship between the plasma and the bone itself. This decalcified organic material in the subsequent osteoporosis is removed by osteoclasts. Fibrous tissue fills in the decalcified areas and osteoblastic activity occurs in these fibrous foci starting new bone formation. The osteoblastic process, however, cannot keep pace with the bone destruction and cysts may develop or "brown tumors" in which giant cells predominate, may be formed. These tumors must be differentiated from the solitary giant cell tumor which is a true neoplasm. These bone changes are most marked in the long bones but the skull and vertebra are also involved. The skull becomes thinned and often moth eaten in appearance, while the softening that takes place in the vertebra produces a narrowing of the vertical diameter and formation of the so-called "fish type" vetebra. The bone changes are in proportion to the duration of the disease and fractures and deformities may result.

RENAL CHANGES

The upset in the calcium and phosphorus balance of the body fluids, with the resulting hypercalcinuria and hyperphosphaturia, produces renal changes in proportion to the amount excreted. The amount excreted depends upon the severity of the disease plus the daily intake. Thus large amounts of calcium and phosphorus may pass daily through the kidneys with the only symptoms being polyuria and polydypsia. If, however, there is a precipitation of the calcium in the kidney pelvis, stones will form and pyelonephritis follow with symptoms of either or both of these conditions. There may be renal colic or the passing of small stones or sand at the end of urination. On the other hand, calcification of the renal tubules with the formation of calcium concretions in the parenchyma of the kidneys will give rise to symptoms which stimulate chronic glomerular or chronic vascular nephritis. This parenchymatous calcification leads to inflammatory changes, nephrosclerosis and contracted kidney. In this event there is enough kidney damage to cause nitrogen retention and renal failure. When the kidney damage is sufficient the serum phosphorus may rise to normal or above because of the kidney's inability to secrete it, which in the absence of any bone changes, obscures the diagnosis and if seen when renal failure is established, the diagnosis is impossible unless events that have gone before have been observed. Terminally the calcium may be normal and the phosphorus high, due to kidney insufficiency.

Acute hyperparathyroidism or acute parathyroid poisoning has been produced in animals by giving large doses of parathormone, which produces death in a few days. There is prompt rise in the serum calcium, nitrogen retention, lowered CO_2 combining power and anuria.[7] The serum phosphorus not effected at first rises terminally due to impaired renal function. At autopsy calcium deposits are found in the stomach, lungs, thyroid, blood vessels, and kidneys. The renal failure is acute with no evidence of chronic kidney change. Though acute hyperparathyroidism can be produced experimentally in animals and has been suspected as a cause of sudden death in two reported cases of hyperparathyroidism, its chief interest clinically, is to warn against overdosage of parathormone.

SYMPTOMS

Symptoms of hyperparathyroidism vary. The predominating subjective symptoms are usually

identified with the tissues most affected by the disease. The hypercalcemia causing lassitude, weakness, loss of weight, fatigueability and loss of muscle tone. It is interesting to note the frequency of flat foot which is no doubt due to the myotonia.

Symptoms caused by skeletal changes are bone pains, backache, "rheumatism" and bone tenderness. Bone cysts or bone tumors may be the first presenting signs, a common location being the jaw. Albright regards every epulis as evidence of hyperparathyroidism unless proved otherwise. Late bone changes of course give symptoms of deformity, fractures, and loss of stature due to changes in the vertebra.

Symptoms due to renal changes are polyuria, polydipsia, and infrequently enuresis. Other renal symptoms are in accordance with the part of the kidney involved. Renal colic or other symptoms due to kidney stone such as pain or pyelonephritis may be the first symptom complaint. It is believed by some that 6 per cent of all kidney stones are due to this disease. This estimate may be high but in any event the surgical removal of a renal calculus should never be attempted until a blood calcium and phosphorus estimation is made. Because if the calculus is due to hyperparathyroidism, reoccurrence is very probable if it is removed without correction of the underlying cause. Calculi that reoccurs after removal should be regarded as due to hyperparathyroidism unless proved otherwise. When the kidney parenchyma is involved the symptoms may simulate chronic Bright's disease with nocturia, polyuria, fixed specific gravity, albuminuria, and finally nitrogen retention and renal failure. In any case of progressive kidney disease where the etiology is obscure hyperparathyroidism should be suspected.

DISCUSSION

Hyperparathyroidism may simulate various common diseases and at times it may be difficult to differentiate it from similar uncommon diseases. The classical osteitis fibrosa cystica of Von Recklinghausen presents no diagnostic difficulty, because by the time there are demonstrable bone changes the diagnosis is easy. However, to recognize the disease before there is any clinical evidence of bone changes one must be able to evaluate the presenting signs and symptoms and realize that bone pathology is not necessary to the diagnosis. In Albright's series of 35 proved cases of hyperparathyroidism, 12 had no demonstrable evidence of bone disease but had kidney symptoms and positive blood findings. Parathyroid adenomas were removed at operation.[8]

Since the known function of the parathyroid hormone is to maintain an equilibrium between calcium and phosphorus of the body fluids, it follows that the first effects of hyperparathyroidism is the disturbance of this equilibrium. The increased output of calcium and phosphorus in the urine will lead in time to bone disease particularly if the daily calcium intake is subnormal. With normal or subnormal intake there is a negative calcium balance. If, however, a high calcium intake is maintained bone disease may never occur. The kidneys in this event will suffer under the load of added calcium secretion and renal symptoms will occur in proportion to the amount of kidney damage.

It has already been shown how the serum phosphorus may be found to be normal or above normal. There are cases in which the serum calcium will be found to be normal. This may be due to a low serum protein. In estimating the serum calcium, both the ionizable calcium and the calcium bound to protein are measured as a whole. There may be an increase in the ionizable calcium due to hyperparathyroidism but if there is low serum protein, the calcium bound to protein will be low, thus giving a normal total calcium. A correction must be made for the low protein and usually the serum calcium will be found to be above normal. This procedure is not usually necessary but should be remembered and a serum protein estimation made if there is any question about the diagnosis.

TREATMENT

The treatment of hyperparathyroidism is the surgical removal of the adenoma or the hyperplastic glands. Any other form of treatment has proved unsuccessful.

X-ray exposures over the parathyroids have not influenced the course of the disease or changed the blood chemistry in cases where it has been tried. If bone tumors are present X-ray exposures will reduce them in size but at the expense of increasing the fibrosis and the anemia. This of course is to be avoided.

The feeding of a high calcium diet will arrest and improve the skeletal decalcification by overcoming the negative calcium balance. This however, increases the calcium excretion in the urine and in the presence of kidney damage would only further impair the kidneys. This danger is true even to a greater extent when a high phosphorus diet is given. Thus, improvement in the bone disease is made at the expense of further kidney damage. In cases where surgery is refused or where it has failed to relieve the condition and the feeding of a high calcium or high phosphorus diet is used to combat the bone disease, frequent serum calcium and serum phosphorus estimation should be made to avoid a possibility of producing acute parathyroid poisoning.

Acidification of the urine by the use of such drugs as ammonium chloride, while logical as a means of preventing kidney calcification, only enhances the decalcifing power of the parathy-

roids and is to be avoided.[9] For the same reason any attempt to dissolve stones already present by urinary acidification is to be discouraged. Since alkaline urine predisposes to stone formation and acidification of the urine enhances the action of the parathyroid hormone the only hope of preventing kidney damage is by successful surgery.

FIDELITY BUILDING.

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DISCUSSION

A. B. Brower, M.D., Dayton, Ohio: I believe that Dr. Koppe has given us a timely discussion of an important subject. The most significant factor in the diagnosis of hyperparathyroidism is the recognition of the possibility of this disease.

The disease must be considered in all cases who present themselves complaining of fatigue, muscle hypotonia, and generalized pains in bones and joints. The use of X-ray in diagnostic surveys as a means of studying bones and joints is almost a necessary routine procedure. The universal use of X-ray in studying the bony system reveals almost as many startling results as systematic X-ray studies of the chest. It is important to recognize that the diagnosis of this condition must often be made without evidence of osteitis fibrosa cystica being evidenced through X-ray studies. The important factor here is the determination of the blood calcium and phosphorus balance and that the level of serum calcium goes up and that of serum phosphorus down. When X-ray studies of the bones are made and decalcification is found it must be accounted for and occasionally hyperparathyrodism will be found to be the cause of the difficulty. When the general practitioner becomes more conscious of this disease more cases will be uncovered.

We must recognize the fact that over-dosage of parathormone may cause death. If an overdosage of parathormone is given we will find at about the end of 36 hours that the serum calcium concentration begins to decline and the inorganic phosphorus to increase. As the chloride and sodium decrease the concentration of urea and non-protein nitrogen increases and so finally we get anorexia, vomiting, diarrhea, lassitude, muscular atony, uremic coma and death.

The signs and symptoms of an acute overdosage of parathormone are usually attributed to renal damage. To overcome this we give intravenous normal saline drips and intramuscular injections of a few grams of 50 per cent solution of magnesium sulphate. The bone signs found by X-ray studies depend upon the calcium intake and so bony changes may not be an outstanding finding if the calcium intakes have been high.

Cases may be missed if the ordinary serum calcium and phosphorus determinations only are made. A case may be found to have a low serum protein and if this is not corrected the true condition may be overlooked.

To get the proper idea of the possibility of bony involvement all the bones must be X-rayed.

This disease is an insidious protracted disease which cripples but does not kill. Before parathyroidectomy was instituted as a cure for this disease the outlook was bad, the patient dying not as a result of the bone disease but of complications arising therefrom, such as marasmus, cardiac, respiratory, and renal failure, and a few from collapse from operations on skeletal system. Since 1925 the prognosis has markedly improved.

Pain is usually the first symptom that brings the patient to the physician and it is generally limited to the lower extremities and back. Pain may be so severe that patients may wince when touched.

The relation of electrolytes to the contractility of tissues has long been recognized. In hyperparathyroidism the increased serum calcium and decreased serum phosphorus are associated with decreased excitability which explains the hypotomia and muscular weakness.

Parathyroid tetany frequently follows removal of parathyroid adenomas. Immediately following operation large amounts of calcium lactate or other easily soluble calcium preparations should be given by mouth. Danger of tetany may be reduced, Jaffe says, by a two stage operation in which adenoma of the parathyroid is first transplanted into the abdominal wall and removed weeks later.

It may be that hyperparathyroidism is a very rare disease or that it may be more rare in some localities than in others. Up until 1936 Barr, who first reported a case in the United States, had only found four cases. Until that same time the Mayo Clinic Group had only diagnosed five cases. It is interesting to note that Barr has done serum calcium determinations on many cases of urolithiasis without uncovering a single case of hyperparathyroidism.

It has been suggested that a deficiency of Vitamin D is a cause of hyperplasia of the parathyroids. This has been found to be true by Nondiez, Goodale, Higgins and Shead experimenting with chickens. The conclusion was that the ability of the parathyroids to increase the supply of their product represents a compensation mechanism which protects the organism against relative degrees of deficiency of Vitamin D. This compensatory effect is usually not overdone, but occasionally it may be and we get the symptoms of hyperparathyroidism. These manifestations may vary depending upon the part of the country where Vitamin D is more deficient. The use of Vitamin D as a treatment must be done with great caution. Vitamin D promotes calcification and this may predispose the patient

to renal stones, metastatic calcification, or to dangerous hypercalcemia and circulatory failure.

X-ray therapy may be done for these cases in which; first, surgery is contraindicated; second, in cases in which the adenoma may not be found, and third, in cases where part of an adenoma was left behind at operation. The chief difficulty in the surgical removal of the parathyroids is to locate them. Their anatomical site varies. They may be found anywhere from the pharynx to the mediastinum.

Tetany is probably the most common complication of parathyroidectomy. Psychosis may develop after this operation. Polyuria may suddenly cease and anuria suddenly ensue for a short period.

It must be remembered that treating tetany developing after operation on the parathyroids requires much larger doses of calcium because the reversal of flow of calcium to the bones from the blood. It is usually necessary to give it intravenously to get the desired effect and also to give it repeatedly. If the calcium is given early and in large doses parathormone is seldom required.

Vitamin D should be used sparingly as too much may precipitate tetany by diverting too rapidly the calcium to the bones. The use of Vitamin D should only be made when lime salts are given in abundance.

The results from parathyroidectomy differ in individual patients. In patients suffering from this disease only a short time and there are no complications, the results are excellent. However, the patient afflicted a long time and having complications of renal impairment, deformities, and other severe manifestations, we can only hope to see them made somewhat more comfortable as no great change in deformity or renal damage occurs.

An Unusual Cause of Acute Intestinal Obstruction

C. M. Rambo, M.D., Lester Lasky, M.D., and J. F. Iden, M.D.

Intestinal obstruction may be caused by many kinds of foreign bodies, both endogenous and exogenous. The unusual character of the obstructing agent in this case has prompted the authors to publish this report.

We have been unable to find any recorded instance of such a case, and believe it to be unique.

In this instance a 56 year old white male swallowed four turtle eggs, which passed through the stomach and pyloris to the ileocaecal valve, at which point they became lodged, and surgical intervention became necessary.

It is interesting to note that the membranous covering of the eggs was so leathery and tough, even after being in the intestinal tract approximately four days, that it was impossibe to break them open except by cutting the covering with a sharp instrument.

The following is the case history:

Mr. J. K., age 56 years, was admitted to Bethesda Hospital on June 14, 1938, complaining of severe, cramp-like pains in the lower abdomen and vomiting. He thought that the trouble was due to the turtle eggs he had swallowed, while in a state of intoxication, at a picnic on June 12—two days prior. This was a little confusing to us because we did not thoroughly understand the nature of turtle eggs.

Physical examination failed to reveal anything except the distention. X-ray showed fluid levels in the small bowel.



Fig. 1. The eggs in the bowel.

The symptoms became more and more severe. The following day, June 15, 1938, a laparotomy was done which disclosed four spherical masses in the distal ileum, lodged at the ileocaecal valve.

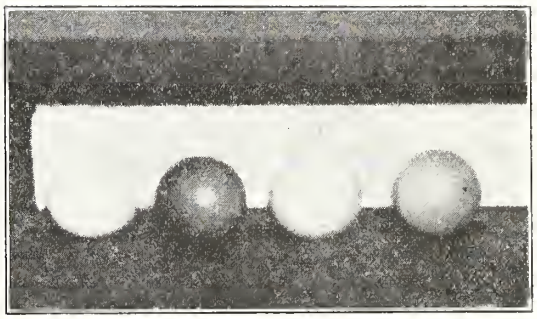


Fig. 2. The eggs removed, showing their approximate size.

An ileotomy was done and four turtle eggs removed.

The recovery was uneventful except for a subfacial abscess, which opened spontaneously on the sixth postoperative day.

The patient was out of bed on the nineteenth postoperative day, and dismissed from the hospital on the twenty-sixth postoperative day.

ZANESVILLE, OHIO.

According to the League of Nations Committee, inadequacy of diet is widespread, as indicated by the prevalence of rickets, scurvy, poor musculature, teeth of poor structure, anemia, chronic fatigue, poor condition of the skin, subnormal growth, and weight. The one factor in this situation is that protective foods are expensive. Nevertheless, as one authority puts it, **The Solution is Still in the Kitchen and Not in the Laboratory.**

"Irritative" Treatment of Schizophrenia

GUY H. WILLIAMS, Jr., M.D., HELEN KINGSBURY, M.D., and DAVID E. BIXBY, M.D.

HARDLY a day passes in the life of a psychiatrist, that some friend or relative does not inquire as to the etiology and prognosis of schizophrenia, one of the most devastating diseases of mankind. The causative agent or agents are still obscure, so that this disorder remains a challenge to the medical profession as a whole, but more especially to those interested in mental diseases.

Afflictions of the mind have been treated by multifarious methods and routines, some of which have even approached those employed by charlatans and quacks. For example, "shocks" have been produced by such procedures as immersion in ice water, applying red hot irons to the body, prolonged use of cathartics, administration of wines and cordials, starvation, whipping and solitary confinement. In more recent times such therapeutic methods as malaria, typhoid vaccine, production of abscesses and heavy sedation have been in vogue. In addition to the "shock" treatments described above, much has been done to improve the endocrine function and the psychoanalyst has aided greatly in the betterment of the mental health of these individuals.

The Authors

● Dr. Williams, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1932; associate member, American Psychiatric Association; member Cleveland Neurological Society; assistant physician, Cleveland State Hospital; assistant visiting neuro-psychiatrist, out-patient department, Cleveland City and University Hospitals, Cleveland; demonstrator of anatomy, Western Reserve University School of Medicine.

● Dr. Kingsbury, Cleveland, Ohio, is a graduate of University of Rochester School of Medicine, Rochester, New York, 1932; assistant physician Cleveland State Hospital.

● Dr. Bixby, Cleveland, Ohio, is a graduate of Eclectic Medical College, Cincinnati, 1921; member American Psychiatric Association; assistant physician, Cleveland State Hospital.

BIOLOGIC ANTAGONISM

Unfortunately, no one of these modes of treatment nor combination, has been of much avail in the final analysis. It may be that before any real advances can be made, we must know the etiology of this disabling entity. Occasionally in the history of medicine, one encounters examples of biologic antagonism of two disorders with ultimate benefit to one of them. This fact led de Meduna,[1] the originator of the convulsive treatment to look for the probable biologic antagonists of schizophrenia. He was intrigued by the work of various observers who found that epilepsy and schizophrenia were rare in the same person. In fact, certain investigators even went so far as to say that they questioned the correctness of a psychiatric diagnosis when the two entities occurred in the same individual. However, conflicting views concerning this subject are found in the literature. The opinion has been expressed that many so-called epileptic patients are no more than cases of schizophrenia, in whom a convulsive disorder has occurred. It is interesting to note that a check of the patients in the Ohio Hospital for Epileptics[2] reveals that only 3 per cent of those individuals show any schizophrenic traits. In the Cleveland State Hospital there are 9 out of 1,408 cases of dementia praecox, revealing epileptic tendencies. Although there seems to be some question regarding the occurrence of epilepsy in schizophrenics, our experience shows the concomitance of the two to be unusual and believe therefore that there is possibly a biologic antagonism between the two diseases. Working upon this assumption, de Meduna[1] thought that by inducing epileptic attacks in cases of schizophrenia, the chemical, humoral, haematological and other aspects of the organism might be changed in such a way that the individual would obtain a remission from the schizophrenic state.

De Meduna[1] first employed a number of agents such as strychnine, brucine and thebain, which act on the spinal cord to induce a tetanus-like, rather than an epileptiform attack. These were eventually eliminated and camphor was found to be more successful. However, even by using camphor no definite dosage could be determined since all patients did not tolerate it in the same amounts. He finally concluded that because of its consistent action and its ready solubility in water with rapid absorption, metrazol was the best drug to employ.

De Meduna[1] claims that in those cases which come for treatment within six months after the first manifestation of the disease, there is a probability of remission in 80 to 90 per cent. He further states, that in cases older than one

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year, this probability sinks rapidly, until in those of four years or more, remissions are scarce.

DRUGS USED

In our application of the convulsive therapy, we have used camphor plus metrazol in some patients, and in others have employed metrazol alone. The treatment as outlined by Friedman[3] has been followed with only minor variations.*

It has been our rule not to increase succeeding doses of metrazol unless we failed to secure the convulsive reaction, or it was of such a minor degree that it was regarded of little value. In many instances, from six to twelve or even fifteen good seizures may be procured with the administration of the same dose before a "tolerance" is established. Treatment was attempted in several cases without giving any attention to the administration of alkalis or alkaline diet. Although convulsions do occur sporadically, they cannot be obtained with any degree of regularity, a fact indicating the need of the alkalinization regimen.

Some of the most unpleasant experiences are found in the "incomplete" (meaning sub-convulsive) reactions following the administration of metrazol. Many times these responses are terrifying, and such episodes place an indelible mark upon the patient's memory so that future treatments are fraught with much fear and apprehension. To offset this, we have often given a second dose of the drug immediately in an attempt to produce the desired convulsion. This procedure has been recommended by Kennedy.[4] Low and his associates,[5] "do not hesitate to repeat the injection after about 30 minutes", stating that they experience no ill-effect from this practice.

AMOUNT OF THERAPY

Probably one of the most difficult questions to answer is what constitutes a course of treatment. Several factors influence the final decision on this question, namely, (1) change in the patient's mental condition, (2) signs of "toxicity"—such as amnesia, disorientation, mild ataxia, and dysarthria, (3) the number of convulsions, and (4) the occurrence of any untoward signs or symptoms. In the hands of the inexperienced, the common practice is to discontinue the treatments as soon as improvement has been manifested, which often follows the second or third seizure. To obtain the desired results, we believe it absolutely essential to give no less than 12 convulsive doses of the convulsant agent, in order that the improvement, which has oftimes been brought about by the first few injections, may be retained. We have observed remarkable recovery after two, three or four convulsions, but if untreated for a matter of even three or four days the patient begins to regress. If, as stated above, 12 or more seizures are experienced, the regression is much delayed even though it may ultimately ensue.

Many of our cases, because of the long duration of illness, have been subjected to anywhere from 30 to 50 seizures in one course with definite benefit. For the more acute conditions, this would probably be far too many at least in the majority of instances. A second, short intensive series of injections after one to two months rest have been employed successfully in certain patients who did not respond to the regular routine. Three or four chronic catatonics have received periodic treatments to maintain improvement gained by the usual course of therapy. As soon as any sign of regression is manifested, another injection is given, which often suffices for a week or two.

It is advisable to have some barbituric acid compound available at all times, should it be necessary to terminate a prolonged seizure.*

CAMPHOR

In using camphor as the convulsant, epileptiform reactions do not always occur. Should a seizure or seizures be obtained following the administration of this drug, it or they will usually appear in from fifteen minutes to three hours, although we have seen convulsions as long as five or six hours afterwards. Occasionally, if the patient becomes restless or cooperates poorly during the injection, camphor may accidentally be forced into a vein in which case a convulsion ensues almost immediately. As stated above, the convulsive state is not always reached in the use of this substance. When it does become evident, a single convulsion is the usual reaction although two or more may occur within a relatively brief period. We consider it inadvisable to permit the individual to have any more than five grand mal attacks following one injection. These may be terminated by any barbiturate, morphine or inhalation anesthesia. The convulsions of camphor are very similar to those of metrazol—namely—they are first clonic, becoming tonic and further changing to clonic. This has been excellently represented by cinematographic and kymographic tracings of metrazol reactions as demonstrated by Finkleman and his associates.[6] In the post-convulsive period, the camphor patients are extremely restless for a short time and then fall off into deep sleep lasting 15 to 30 minutes. Following this they are usually quite hazy mentally, and on occasions display all sorts of grostesque postures, many weird movements and athetoid motor patterns. Days after the treatment has been in progress, varying from perhaps four to twelve, these cases show evidence of a definitely "clouded sensorium", amnesia, become ataxic and have dysarthria. In fact, a casual observer would think they were intoxicated.

*We wish to express our appreciation for instruction and help given us by Dr. Friedman.

*Suggestion from Torald Sollmann, M.D., Professor of Pharmacology, Western Reserve University, who has given us invaluable assistance and guidance.

METRAZOL

When in the use of metrazol, the reaction is complete, there is an immediate epileptiform attack revealing the following sequence of events: (1) A slight cough in most instances, which is probably a reaction to a sense of suffocation; (2) a very brief period of restlessness in which the individual often displays fear and apprehension; (3) following closely or occurring simultaneously with the restlessness are vivid aura—sometimes visual, sometimes auditory or experiences of weird subjective feelings; (4) clonic movements during which consciousness is lost; (5) followed by a tonic phase and again (6) by another clonic one as described above. In our experience the reaction usually occurs within five to fifteen seconds following the injection. We have noted that in severe cases of catatonia, the latent period is somewhat longer and have speculated as to whether it takes the metrazol a longer time to break down the "barrier or block" which retards or completely prevents motor activity. After the convulsion these patients also show a short period of restlessness followed by deep sleep. Twelve to fifteen hours later they seem fairly clear mentally and do not reveal the "clouded sensorium" of the camphor patient. However, in prolonged treatment these cases also show a "toxicity" as mentioned above.

To illustrate this point we cite the example of a white male, 23 years of age, who during the course of therapy with metrazol was for all intents and purposes "normal". During the last week of his treatment he became quite confused mentally, was forgetful, disorientated as to time and was unable to carry out such minor tasks as even sweeping the hall. If left alone and told to do this he persisted in sweeping over the same spot time after time and on one or two occasions the attendant returned after a matter of 10 or 15 minutes to find that he had made no progress.

It is difficult to postulate what the beneficial agent or agents are in this therapy. One speculates as to whether the therapeutic benefit is obtained with the convulsion alone or whether it is a combination of the seizure plus the drugs employed. There is much evidence to indicate some reaction on the part of the vegetative nervous system as evidenced by the vasodilatation of the skin, pilomotor reaction, profuse sweating, increase of appetite, normal sleep, and return of normal menstruation in women. Friedman expresses the belief that camphor causes a certain psychological upheaval that is not obtained by using metrazol alone. After producing this upheaval, he then administers metrazol in an attempt to clear away the "debris" of the schizophrenic state. It is possible that by physiological or biochemical means a barrier is set up which prevents the so-called "normal" thinking process. Because of this obstruction, devious routes producing abnormal behavior are employed in thinking or acting, to attain the ultimate goal. It may be assumed that by the 'irritative' treatment this barrier is broken down and the so-called "normal" pathway again restored. After prolonged disuse, these patterns or pathways possibly become "atrophic" so that regardless of whether the barrier is lifted, one cannot expect any functional return. The same analogy may be applied to this as in the case of a limb or group of muscles which have been unused for months or perhaps years, and have become atrophic and of no value functionally.

OUR EXPERIENCE

In citing the results of our experience with the convulsive therapy, we wish first of all to impress the fact that we are dealing with chronic patients and these results must not be accurately compared with those cited by Friedman[3], Finkleman[6], Low[5], and others since their work was chiefly on patients with an acute illness.

To date we have completed the treatment on 65 patients, and 18 more are now under therapy, or have just completed it. Our results are based on the 65 cases, since insufficient time has elapsed to enable us to make any definite deductions concerning the latter group of 18. In studying this series, we have classified the results under three separate headings—namely: Improved, slightly improved, and unimproved. Our criteria for improvement are as follows:

Disappearance of signs and symptoms of dissociation; return of at least some insight; ability of patient to make a social adjustment outside of the hospital, and generalized improvement in the physical health of the individual.

By slight improvement we refer to at least partial clearing of hallucinations; fading of delusions with ability to cooperate and adjust within the institution along with generalized physical betterment.

The results of our tabulated data are in Table No. 1 and are self-explanatory.

Scrutinizing the records of the Cleveland State Hospital for the past 10 years, we find that only 5.18 per cent of the cases of schizophrenia have been discharged as improved. This figure represents improvement by routine hospital care, a degree of psychotherapy, occupational therapy wherever possible. and in some instances, treatment directed toward the betterment of the endocrine function. While our 26.1 per cent of improvement does not approach some of the reported results, it can be readily seen that this is a distinct advantage over routine hospitalization plus the other factors described above.

The 33.8 per cent group of slightly improved patients represents unmeasurable value in the hospital care of these cases and production of better institutional citizens. Finally, there is the unimproved group of 40 per cent which is higher than either of the others, but here the average duration of illness is 6.2 years, a figure which

far exceeds the expectations of the treatment as outlined by de Meduna[1].

UNTOWARD EFFECTS

The contra-indications for this type of therapy are as listed in Friedman's[3] original article. To this we have added with some reservations, increased psychomotor activity. In our opinion, it is unwise to subject an individual with manic tendencies to this "stimulating" treatment.

The complications of this therapy are fortunately few, and usually of slight consequence. The most serious and prevalent one in our experience, is gluteal abscess formation which was encountered in five cases, all of whom had camphor. There have been numerous dislocations of the mandible and a few minor lacerations of the tongue. In several patients routine urine examinations evidenced renal damage as shown by slight amounts of albumin, occasional casts and red blood cells. Investigating the literature, we found no mention of camphor or metrazol producing renal changes except in doses greater than those employed. It was believed therefore, that the above noted urine changes were probably the result of the convulsive state alone.

TABLE 1

	Total Number Treated	Improved	Slightly Improved	Unimproved
Average duration of illness	4.5 yrs.	2.5 yrs.	4.3 yrs.	6.2 yrs.
Average number of Convulsions	28	23	34	26
Schizophrenia (Unclassified)	32	8	13	11
Paranoid Type	8	5	1	2
Hebephrenic Type	12	2	2	8
Catatonic Type	10	2	4	4
Simple Type	3	0	2	1
Treated with Camphor	1			1
Treated with Metrazol	16	6	4	6
Treated with both Camphor & Metrazol	48	11	18	19
Total	65	17	22	26
Percentage		26.1	33.8	40

To our knowledge, only four fatalities have been reported thus far. Briner[7] of Waldau, near Bern, reports two deaths. Autopsies revealed a hypernephroma in one case and pulmonary embolus in the other. Kraulis[7] of Riga, Latovia, observed a fatality following several late epileptic attacks (seven in two hours). The fourth death was in a series of 500 cases treated in Hungary, the cause in this instance being unreported[7].

It has been stated that metrazol treatment alters the blood picture and de Meduna[1] indicated that in many instances there was a relative increase in the neutrophils and proportionate reduction in the lymphocytes. This finding, according to him, possessed a certain, though limited prognostic value since it was seen that the change was greater in patients who showed a remission. Blood studies in eight of our cases revealed a consistent leucocytosis, 12,000 ± during metrazol therapy, and 20,000 ± under camphor treatment. There was a relative increase in neutrophils while using both convulsants (85 to 90 per cent) regardless of the prognosis or ultimate outcome. The greatest and most consistent rise or leukocytosis, as stated above, resulted from camphor injections. Low, et al,[5] found a consistant rise in the white cells following seizures with metrazol. Because of limited laboratory facilities we were unable to do extensive blood sugar determinations, but in 10 cases found an increase of 20 to 30 mg. 15 minutes following the seizure. During camphor treatment it is common to find the urine reducing Benedict's solution. It was first thought that the change was due to the presence of sugar, but further investigation revealed that it was caused by the excretion of glycuronic acid in combination with camphor.

SUMMARY

Our work being limited to chronic cases, we are in no way able to give an opinion from actual experience as to the merits of this therapy for acute involvement. In chronic patients it possesses a certain therapeutic value in a relatively small proportion of cases as compared to the results in acute disorders.

While we have had no experience with insulin therapy, we believe that insulin and metrazol should not be regarded as competitors, since some types of schizophrenia apparently react better to one form of therapy than the other.

We are agreed that metrazol has many disadvantages as well as certain encouraging features.

The remissions obtained whether they be permanent or not, as well as the improvement both physically and mentally in certain other instances are indeed gratifying.

The insulin therapy and convulsive treatment have provided much encouragement thus far and it is to be hoped that continued intensive study in a truly scientific spirit will eventually result in a solution of this most serious disorder.

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DISCUSSION

Douglas Goldman, M.D., Cincinnati, Ohio: I appreciate very much the opportunity of discussing Dr. Williams' excellent presentation of this new and important topic.

As Dr. Williams says, the statistics necessary to prove correlation either positive or negative between schizophrenia and epilepsy must be worked out on a much larger proportion of the general population than has yet been done.

The technique of irritative therapy varies greatly from one clinic to another. Dr. Friedman insists on the use of camphor preliminary to the metrazol and accompanying use of alkali and hydration and the injection of metrazol three times weekly. In other institutions the metrazol is injected without preliminary camphor three times weekly or every other day. In many places such as the State Hospital at Elgin, Illinois, where the work of Finkelman, Steinberg, et al. is being done metrazol is injected only twice weekly. In our series of 72 cases about equally divided between the three techniques it seems evident that the results are best when the drug is injected only twice weekly. There is much less of the toxic confusion evident with this technique, and we do not believe any longer that this confusion is as important to recovery as Dr. Friedman's published results would indicate. The group at the Elgin State Hospital believes this confusion unnecessary also. We do not find it necessary to have our patient alkalinized to produce regular convulsions with metrazol although it may be necessary to achieve results with camphor. Most clinics who are using the metrazol alone do not attempt to alkalinize patients. In our experience it is important to observe carefully the duration of the latent period between the end of the injection and the beginning of the tonic phase of the convulsion to determine subsequent doses. When the latent period approaches or exceeds 15 seconds the subsequent dose should be increased by 1 cc. It is also safe to inject a second dose within a few minutes of the first dose if a convulsion is not produced by the latter.

The number of treatments necessary is quite variable but confusion, disorientation, and toxicity are sure to result from a large number of seizures, particularly when the treatments are given every other day. As was mentioned before we do not consider such confusion necessary or desirable.

The use of barbiturates is occasionally necessary in the face of undesirable reactions. In over 2,000 seizures it has been necessary to use barbiturates only twice: once when a total of 34 cc. was used to produce a convulsion and this was followed by generalized twitching and once when a single injection of 10 cc. was followed by repeated convulsions. In both instances the injection of barbituric acid derivative was immediately effective in relieving the undesirable condition.

The results from metrazol are not comparable with those attainable by the use of insulin, even in cases of recent origin. We have had no failures in eighteen cases of less than a year's duration with the use of insulin, and metrazol has failed in two of six early cases, and in the other four the results did not seem quite equal to what insulin was able to accomplish in others. In the cases of long duration, i.e., three to five years or more insulin is distinctly more useful. These results followed extremely conscientious use of metrazol and camphor with metrazol in an adequate group of cases. Friedman originally believed that the camphor metrazol technique would be applicable to old cases, but this certainly has not been the case in our series.

Metrazol has a great field of usefulness when it is given along with insulin to patients who seem unusually resistant to treatment. We have given metrazol late in the afternoon after the hypoglycemia has been terminated for several hours with marked benefit. Eight of nine patients so treated showed class A or B recoveries, even though several were of more than two years' duration, and one case of over five years' duration showed complete recovery.

The use of metrazol in mania has not been found dangerous by us. We have treated acutely disturbed manic patients with metrazol and found that within an hour, i.e., as soon as the patient fully awakens following convulsion, he or she is quiet and cooperative. Similarly mute depressed patients become communicative and cheerful following a metrazol convulsion. This improvement is lasting and it has been found that four to six convulsions at intervals of four to ten days are usually sufficient to permit the patient's return home.

In our experience no abscesses of the buttocks followed over 500 injections of camphor in 27 patients. We have seen numerous dislocations of the jaw which we do not consider of any importance because many of them are spontaneously reduced, and the rest are easy to replace. We have seen two dislocations of the shoulder which did not eventuate seriously. We have seen one case of bilateral fracture of the necks of the femurs which unquestionably occurred during the convulsion, one fracture of the anatomic neck of the humerus, and one fracture of the acetabulum, all of which could be attributed to the metrazol. One patient died nine days following the last injection of metrazol. The details of this case will appear in a subsequent publication with the rest of our data.

The laboratory findings which Dr. Williams has noted are essentially similar to ours.

A patient with severe pain in the right side had some urinary disturbance. X-ray showed a dense shadow about the line of the pelvic right ureter. Ureteral catheter passed in contact with the shadow, which was denser than the usual urinary stone, and of unusual shape. The operation revealed a dermoid cyst of the right ovary, containing one tooth, fully formed except for the roots.—R. Campbell Begg, Wellington, N. Z.

Cod-Liver Oil and Vaseline Treatment of Burns

IVAN C. BERLIEN, M.D., and JOHN R. DAVIS, M.D.

IN 1932, Prof. Whilhelm Lohr[1], at a surgical Congress in Magdeburg, reported on the value of crude cod-liver oil in the healing of wounds. He obtained striking results using this treatment of burns, ulcers or any abraded surface together with immobilization of the part by a plaster bandage.

He was already aware that cod-liver oil is bacteriostatic, having determined this fact while doing bacteriological research.

He combined the oil with some indifferent fat to make an application of the right consistency, which was found to rapidly permeate granulation tissue, forming an emulsion with its secretion. Under this layer he discovered that bacterial growth was hindered and bacterial toxins rendered harmless. The practical result of applying this cod-liver oil salve to a mass of granulations is to change a pale oozing surface covered with detritus into the clean ruddy picture of healing. Tremendous activity with massive secretion of pus soon leads to the shedding of dead tissue and sharp demarcation between healthy and dead. So violent is this reaction, that at first it may be inadvisable to cover the area with an impenetrable layer of plaster, although this is done as soon as possible.

Clean burns may be covered with the oil and over it a plaster dressing applied at once, when, in this warm chamber healing takes place rapidly.

Following the original work of Lohr, the Smithdown Road Hospital[2] in Liverpool cautiously began to use cod-liver oil in the treatment of minor burns and the results were so successful that they extended the treatment to include major burns and again found the results most gratifying. They noted that not only was the treatment painless after the primary application, but that it promoted more rapid healing with no scar formation and no pigmentation after a short time following its use.

They inoculated cod-liver oil with staphlococcus pyogenes aureus and found that it inhibited the growth of the organism, and this has been corroborated by one of us (Davis).

TECHNIQUE AS EMPLOYED IN LUCAS COUNTY HOSPITAL

When first seen, no attempt is made to clean or debride the burned areas beyond a light washing with cold boric acid in the dirtier cases. The burns are immediately dressed with cod-liver oil and vaseline, using a mixture of 60 per cent cod-liver oil and 40 per cent crude vaseline. This mixture was found to be of the most optimum consistency and concentration of cod-liver oil. The original treatment as described above employed crude cod-liver oil, but it was found to be objectionable due to its saturating the dressings and running out, causing "messiness."

To the cod-liver oil and vaseline mixture is added, in its preparation in the pharmacy a small amount of tincture of Myrrh which alters the offensive odor to one not at all objectionable. This was done upon the suggestion of one of the house staff and has done considerable to reduce the number of complaints by patients who formerly objected to the distasteful odor.

The dressing used is sheet-wadding and crepe-paper such as is used in applying padded plaster of Paris casts. The cod-liver oil and vaseline mixture is spread on the sheet-wadding and applied to the burn. Around this a circular bandage of two or more thicknesses of sheet-wadding is bound and over this one layer of crepe paper. Gauze bandage completes this relatively non-permeable dressing. Immediate relief is experienced by the patient.

For several days the dressing is changed daily until the initial reaction has subsided somewhat and then only every three to four days. The raised bullous areas which contain a jelly-like sero-albuminous transudate are opened, the dead skin peeled away and the transudate removed, since its presence would prevent contact of the granulating surface with the cod-liver oil and at the same time provide a culture medium for any organisms, although no infections are seen in burns receiving this treatment.

Contractures, subsequent plastic surgery and the additional morbidity so often occasioned by

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The Authors

● Dr. Berlin, Detroit, Michigan, is a graduate of Wayne University College of Medicine, 1937; resident, Receiving Hospital, Detroit; assistant, department of anatomy, Wayne University.

● Dr. Davis, Toledo, Ohio, is a graduate of University of Michigan Medical School, Ann Arbor, Michigan, 1909; fellow American College of Surgeons.

burns are prevented by this method of treatment.

This commendable feature is accomplished through the utilization of plaster of Paris casts so applied as to prevent their formation, (Fig. 1). The principle is simple, i.e., an equal and opposite force is exerted against contracture by the cast, the member being put up in extreme extension. The cast is removed and a fresh dressing and cast applied at intervals of a week or longer. Most patients are ambulatory after the initial acute phase has passed.

Skin grafting is reduced to a minimum by this method of treatment, being employed only in those cases in which the progress of healing be-

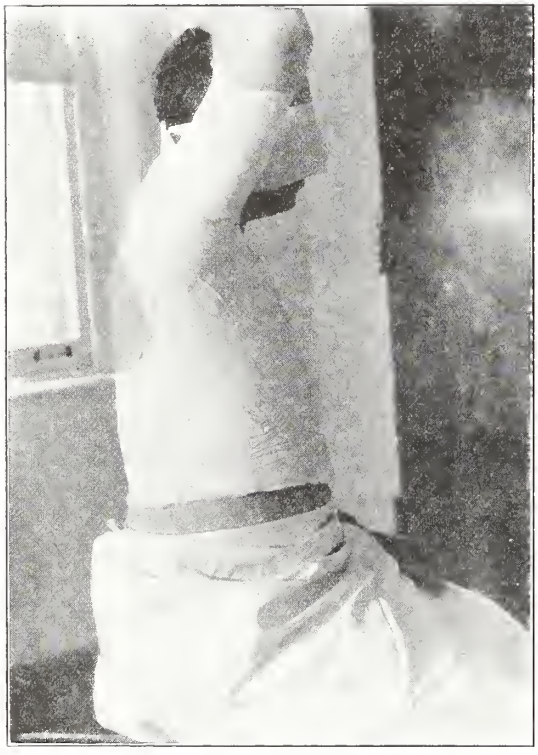


FIG. 1.

comes arrested or in which the morbidity can be reduced through its use.

Severe cases are admitted to the hospital and at once receive treatment to combat shock and prevent toxemia. Morphine in adequate amounts in the more severe and acetylsalicylic acid and codeine in the less severe cases are employed to reduce pain.

The fluid balance is maintained at an adequate level and controlled by daily or tri-weekly red blood cell and hemoglobin determinations and urinalyses. A red cell count and hemoglobin value higher than normal is construed as indicating dehydration and the fluid intake is increased. The fluid intake in adults is forced to from 4,000 to 5,000 cc. per day, depending on age, size and the factors mentioned. This fluid is taken mostly by mouth, but in severe cases in shock or those which appear toxic are given 10 per cent glucose in distilled water by vein and 2½ per cent glucose in normal saline by hypodermoclysis. In this manner diuresis and detoxification are simply accomplished.

The recognized methods are used in the treatment of shock, and in this connection coramine has been found to be invaluable.

As soon as possible the patient is given a high protein, high caloric diet, rich in vitamins for reasons which must be apparent.

In the early severe stages bicarbonate enemata are given to aid in elimination and aid in alkalinization. Later, mild catharsis is employed to make sure of regular elimination.

Patients are encouraged to exercise fingers and toes to aid circulation and to prevent atrophy from disuse.

The following original cases were selected because they represent burns of varying degree and location and thus illustrate points in treatment.

It must be admitted that not all of the cases admitted recovered but it is reasonably sure that no other method of treatment would have been efficacious, so severely were they burned.

No statistics are cited, since these are still being compiled and will appear at a later date.

CASE REPORTS

M. 754, a 28 year old white male received second degree burns on the back, left thigh and leg, and right thigh from boiling water. Physical examination was otherwise negative.

Routine treatment using the technique given in this paper was instituted. Morphia gr. 1/6 was given on admission to allay pain. The red cell count was 5,570,000, and hemoglobin 140 per cent (Sahli). Fluids were forced to 4,000 cc. the first day; however, the blood picture remained essentially the same and the fluid intake was increased next day to 5,500 cc. with the result that the red count and hemoglobin dropped to a more nearly normal value.

This patient received dressings on the 2nd, 3rd, 4th, 7th, 10th, 12th, 16th, 20th and 24th day when he was discharged with complete healing, no contractures, no permanent scarring and when seen in the follow-up clinic two weeks later, no pigmentation was noticeable.

L., 1950, a 29 year old white housewife whose clothes, upon which she had spilled kerosene, caught fire. She was admitted to the hospital with second and third degree burns of the face, ears, neck, arms, chest and abdomen.

She received routine treatment using cod-liver oil and vaseline.

The red count was 4,670,000, hemoglobin 95 per cent (Sahli) and the urine showed a faint trace of albumin. The Kolmer was strongly positive.

The original dressing applied in the admitting room was removed the following day and a fresh dressing applied with a body cast. The patient

required morphia only four times during the first 48 hours, after which aspirin sufficed.

She received fresh dressings and body casts at weekly intervals, 10 in all being applied, with steady improvement. At the end of 11 weeks she showed complete healing, no contractures and no scars.

In this case, as in the majority of cases treated in this manner, no skin grafting was necessary.

L., 2153, a 14 months old colored male pulled a can of lye down off a shelf and received severe burns on the face, neck and eyes.

Holocaine 1 per cent was instilled in each eye after irrigating with boric acid, and boric acid compresses were placed on the eyes. Cod-liver oil and vaseline was applied to face and neck, with no dressing, but kept fresh so that the burns were covered constantly.

The child was discharged in 12 days completely healed, with no eye damage, no contractures and no scarring. However, there was nonpigmentation over one area of the cheek which remained.

L., 3790, an extensive third degree burn was suffered by a 35 year old junkman when his paint-soaked trousers leg caught fire from a rubbish heap. The burn involved the leg and about one third of the lower thigh.

Cod-liver oil and vaseline was applied in the admitting room and the patient admitted.

The red count was 5,500,000 and the hemoglobin 130 per cent (Sahli). Fluids were forced to 4,000 cc. per day, and the patient required aspirin and codeine only once to allay pain.

The patient ran a mild temperature for nine days but the burn healed rapidly.

The burns were dressed on the second day and then weekly until discharged on the 36th day with complete healing, no scar and no contracture.

L., 3452, a 19 months old white infant received first and second degree burns of the face, neck and chest covering about 10 per cent of the body surface when he pulled hot tea off a table.

Routine treatment was instituted using cod-liver oil and vaseline. The temperature on admission was 100[1] but the red count and hemoglobin were not indicative of dehydration. However, fluids were forced by mouth and by hypodermoclysis to 1,000 cc. daily. The temperature remained elevated but gradually was reduced to normal in seven days. On the fifth day the patient became critically ill and pneumonia was suspected. The patient became cyanotic and dyspnoeic. Oxygen was given by the tent method and coramine administered. A blood transfusion of 450 cc. was given, following which the patient steadily improved.

In this case luminal and aspirin were used to control pain, and the diet included relatively large quantities of fruit juices.

The patient was discharged in 30 days, the burns completely healed. No skin grafts were found necessary as epithelialization progressed rapidly.

L., 2193, a six year old white girl received third degree burns of the face, neck, right axilla and entire chest when her clothing caught fire while playing with matches.

The red cell count was 5,200,000 and hemoglobin 112 per cent (Sahli).

Fluids were forced by mouth, by hypodermo- and veno-clysis and the next day the red cell count was reduced to 4,940,000 and the hemoglobin to 95 per cent. After four days fluids by mouth were taken in sufficient quantities to obviate further clyses.

From the day following admission, body casts were applied over the cod-liver oil and vaseline dressings every two days until the seventh day, following which they were applied at regular weekly intervals. It was necessary to keep the right arm straight above the head in extreme abduction and extension to prevent contracture.

Epithelialization progressed steadily until the 22nd week when it was thought best to skin graft two areas, one on the arm and one on the chest. Following this, healing took place rapidly.

A small keloid scar of the cheek was treated with radium with good results, a small area of scar remaining which is only slightly disfiguring. At present, nine months following the burn, the patient has a good result with no contracture.

SUMMARY

1. The literature pertaining to the cod-liver oil treatment of burns has been reviewed.

2. The exact technique of its use has been presented.

3. This method of treatment is painless, time-saving, and economical.

4. The formation of contractures and scars is prevented by this method of treatment.

5. Skin-grafting and morbidity are reduced to a minimum by this method of treatment.

6. Some case reports have been given.

7. Perhaps the most outstanding feature of this method of treatment is the fact that there is no need for debridement of the burned area and no thought of asepsis.

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Gastrointestinal Allergy

Multitudes of apparent entities have been found to be produced by food sensitivity in allergic individuals, namely: colic, pylorospasm, nausea, vomiting, cyclic vomiting, abdominal pain, diarrhea, and mucous stools in infants and children, and colic, distention, eructations, acidity, cholecystitis, appendicitis, mucous colitis, peptic ulcer, nausea, vomiting, fatigue and weakness in adults.—Geo. J. Seibold M.D., Oklahoma City; Jour. Okla. State Med. Assn., Vol. XXXII, No. 1, January, 1939.

Doctors are always working to preserve our health and cooks to destroy it, but the latter are the more often successful.—Diderot.

Treatment of Tetanus: Further Observations

J. H. LAZZARI, M.D. and S. O. FREEDLANDER, M.D.

IN 1927, one of the authors[1] presented a report of 25 cases of tetanus observed at Cleveland City Hospital during the years 1918-1926. All had been treated with large, repeated doses of anti-tetanic serum intravenously with an encouraging low mortality of 36 per cent. This review also corroborated the importance of incubation period in relation to severity of disease, as had been noted by others. In conclusion it was stated that serum was apparently valuable in the treatment of this disease.

The purpose of the present report is to record all cases of tetanus during the next period 1926-1937, which were treated, for all practical purposes, by the same methods. As will be shown, the mortality for this second series is considerably greater than the first. This tempers one's optimism regarding therapy and indicates the necessity for adequately large clinical groups over a sufficient period of time before conclusions are drawn. The infrequency of tetanus in any single institution impels the collection of data from numerous sources.

The therapy since 1926 is essentially the same as the previous period, and serum has been administered after this general plan:

First 24 hrs.	20,000 units q4h x 6
Second 24 hrs.	20,000 units q6h x 4
Third 24 hrs.	20,000 units q8h x 3
Next 4 days	20 to 40,000 units daily as indicated.

The local wound was incised or debrided as indicated and in some cases serum injected locally around the wound, although this was not a routine procedure. Vigorous sedation was instituted at once, utilizing all established agents for this purpose. The rectal administration of tri-brom-ethanol and intramuscular and intravenous use of the newer barbital derivatives constitutes the only significant variation of the second series over the first.

During the period 1926-1937, 34 cases of tetanus have been admitted to this hospital. Table I demonstrates the salient features of each of these cases. This table is patterned after the table published for the first 25 cases in 1927[1]. Little comment is necessary. The ages of the patients are stated with no particular purpose. The location of the wound is also stated, except in a few cases where the focus of toxin production is doubtful. In no case is there any reasonable doubt as to diagnosis, since this is a disease of rather accurate clinical diagnosis. Lumbar punctures are done on practically all cases to exclude meningeal irritation of other source. The incubation period is stated, with uncertainty recorded in the instances where this data could not be accurately ascertained from the patient or relatives. The delay in treatment is the time lapse from first symptom to hospital admission. The remaining columns in the table show the quantitative and time factors in serum administration. The average total dose in the fatal cases is 141,000 units, which obviously means nothing since the ultimate dose is determined mostly by the supervention of death. In the 12 survivals, total serum dose averaged 255,000 units, only one case receiving less than 140,000 units. The greatest total dose was 440,000 units, whose recipient also had the longest hospital stay, attended by very severe serum sickness. Practically all serum was given intravenously, except in a few instances where technical difficulties impelled the intramuscular route. Four cases were given some serum intra-thecally, with total doses as stated in the notes. Three of these died.

The two tables show a direct reversal of fatality and survival. If one combines tables II and III, a total of 59 cases with 31 deaths (53 per cent) results.

DISCUSSION

It is not an easy matter to determine the mortality of tetanus treated without serum. As quoted in the report of Golla[2], one can select high

The Authors

● Dr. Lazzari, is a graduate of Western Reserve University School of Medicine, 1931; diplomate, American Board of Surgery; assistant visitant in surgery, Cleveland City Hospital; clinical instructor in surgery, Western Reserve University.

● Dr. Freedlander, Cleveland, is a graduate of Western Reserve University School of Medicine, 1918; member American College of Surgeons and the America Association of Thoracic Surgeons; visitant in surgery, Cleveland City Hospital; assistant professor of surgery, Western Reserve University.

From the Department of Surgery of Western Reserve University and the Surgical Services of Cleveland City Hospital.

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TABLE I.

	No.	Age	Wound	Incubation Period	Delay before treatment	Antitoxin 1st 24 hours	No. of injections 1st 24 hours	Total Serum	Day of last injection	Result
1.	79664	41	Finger	2 da.	—	0	0	0		died 2 da.
2.	91243	9	Knee	7 da.	1 da.	80,000(1)	2	195,000	3	died 3 da.
3.	107272	56	Tooth pulled	1 da.	7 da.	80,000	4	110,000	3	died 5 da.
4.	111368	12	Scalp	8 da.	2 da.	100,000	5	100,000	1	died 1 da.
5.	115069	32	Foot (nail)	9 da.	5 da.	20,000	1	20,000	4 hr.	died 1 da.
6.	43214	18	Abortion	7 da.	1 da.	100,000	4	160,000	2	died 2 da.
7.	47418	2	Neck	4 da.	2 da.	100,000	5	150,000	2	died 5 da.
8.	49375	10	Foot and buttock	7 da.	1 da.	? (2)	?	129,500	3	died 3 da.
9.	49207	9	Foot	6 da.	1 da.	70,000	3	70,000	1	died 16 hr.
10.	50969	22	Hand	8 da.	2 da.	75,000	4	160,000	5	died 5 da.
11.	62690	66	Head	3 da.	?	0	0	0	0	died 1 da.
12.	59120	13	Hand (Fire Cracker)	6 da.	1 da.	100,000	5	100,000	1	died 2 da.
13.	55711	17	Hand (Fire Cracker)	7 da.	3 da.	110,00	5	150,000	4	died 4 da.
14.	67535	41	Foot (nail)	7 da.	3 da.	150,000	7	170,000	2	died 5 da.
15.	70672	9	Foot	?	8 da.	80,000(3)	4	80,000	1	died 14 hr.
16.	72582	32	Hand (shovel)	9 da.	2 da.	80,000	2	80,000	1	died 3 da.
17.	73412	32	Foot (nail)	10 da.	4 da.	160,000	7	495,000	4	died 4 da.
18.	124463	43	Thumb	10 da.	2 da.	160,000	4	350,000	3	died 3 da.
19.	124492	38	Head	6 wk.?	3 da.	40,000	2	200,000	5	died 5 da.
20.	129261	34	Thumb	6 da.	3 da.	80,000	4	120,000	2	died 1 da.
21.	155987	46	Frozen hands & feet	3 wk.?	1 da.	160,000	4	220,000	2	died 2 da.
22.	176838	21	Leg	5 da.	12 hr.	20,000	3	20,000	1	died 11 hr.
23.	50261	42	Hernia wound?	26 da.	4 da.	60,000	3	145,000	5	disch. 12 da.
24.	54400	43	Foot (nail)	8 da.	1 da.	70,000	5	270,000	13	disch. 25 da.
25.	68669	11	Foot (nail)	11 da.	2 da.	140,000	7	140,000	1	disch. 13 da.
26.	69405	15	?	?	20 da.	?	?	160,000	5	disch. 27 da.
27.	120164	18	Buttock	21 da.	7 da.	145,000	7	425,000	6	disch. 22 da.
28.	117978	11	Hand	10 da.	7 da.	120,000(4)	4	260,000	6	disch. 25 da.
29.	118735	23	?	?	6 da.	120,000	2	160,000	4	disch. 14 da.
30.	119499	13	Foot (nail)	14 da.	1 da.	140,000	7	440,000	14	disch. 31 da.
31.	121440	5	Heel	14 da.	1 da.	120,000	6	360,000	5	disch. 27 da.
32.	123752	4	Heel?	14 da.	7 da.	0	0	97,000	4	disch. 25 da.
33.	160429	9	Foot	21 da.	5 da.	120,000	6	340,000	5	disch. 20 da.
34.	168543	27	Thumb	11 da.	1 da.	40,000	4	255,000	8	disch. 30 da.

(1) 20,000 U given intra-thecally
(2) 55,000 U given intra-thecally
(3) 20,000 U given intra-thecally
(4) 70,000 U given intra-thecally

Table I shows at a glance a much higher mortality than that reported in 1927. Table II is reviewed from the original report.

TABLE II

Summary (City Hospital 1918-1926)
(S. O. Freedlander, Ann. Surg., March, 1927)

	No.	Cured	Died	Mortality
Incubation less than 10 days	11	6	5	45.5%
Incubation 10 days or more	8	7	1	12.1%
Incubation unknown	6	3	3	50.0%
Total	25	16	9	36.0%

Table III constructed from the current series is varied very slightly to emphasize the item of incubation period.

TABLE III

Summary (City Hospital 1926-1937)

	No.	Cured	Died	Mortality
Incubation 10 days or less	21	2	19	90.0%
Incubation over 10 days	8	8	0	0.0%
Incubation indefinite	5	2	3	60.0%
Total	34	12	22	64.4%

or low averages. On the one hand are mortality rates of 50.8 per cent (Friederich 1838), 44.6 per cent (Curschmann, 1889), and 54.5 per cent (Curling). On the other side are reports of 84.2 per cent (Guy's Hospital), 87.5 per cent (Glasgow), 86 per cent (Bethanian Clinic), 89.3 per cent (War of Secession), and 90 per cent (German, 1871). It is doubtful whether one should utilize these figures of 50 to 100 years ago in comparison with current statistics. Bruce[3] reviewing cases of tetanus occurring in the British Army during the world war could not find any defense for the use of serum therapeutically, although there was definite protection when the serum was used prophylactically. In 899 cases protected by prophylactic serum, the incubation periods of the disease were longer and the gross mortality 22.5 per cent, while in 559 cases not protected, incubation was shorter and the mortality 53.3 per cent. The importance of incubation period, glaringly apparent in our series, is now a well established fact.

Most current reports seem to average around 50 per cent mortality. Yodh[4] in 1932 reported 229 cases with 46.4 per cent mortality and in 1937[5] 438 cases with 50.6 per cent fatal. Cases for the current period at Massachusetts General Hospital range about 47 per cent[6]. Ashhurst[7], in an excellent review in 1913, suggested that the mortality should not exceed 20 per cent but this has not been achieved to date. In a collective analysis of 642 cases Huntington, Thompson, and Gordon[8] presented mortality rates ranging from 58.6 per cent to 66.1 per cent, averaging 63 per cent. A group of 72 cases in which no serum was used showed 65.3 per cent deaths. The highest mortality (66.1 per cent) appeared in a group of 112 cases which were treated by the largest doses of serum. Their report would appear to place the use of serum therapeutically in a defensive position.

ROUTE OF ADMINISTRATION

As to mode of administration of serum, there seems little excuse for continuing the use of the intra-thecal route. The original impetus for this method, aroused by Park[9] and Sherrington[10], is invalidated by subsequent investigations and by clinical experiences. Cole[11] has summarized current knowledge to date very well. In our own series four cases were given some serum intrathecally. Three died, having incubation periods of seven days, seven days, and ? days respectively. The survivor showed an incubation of 10 days. An autopsy on case 8, which was given 55,000 units intra-thecally, revealed a dense plastic meningitis, illustrating one of the distinct disadvantages of this mode of administration. There seem to be no good arguments, and certainly no clinical evidence to warrant further trial of intra-thecal serum. Whether one accepts the neural transport theory of Meyer and Ransom[12] or favors the work of Abel[13] and his associates, makes little difference. Toxin cannot be demonstrated in the spinal fluid and that toxin already taken up by the central nervous system is inaccessible to anti-toxin.

SERUM DOSAGE

Quantitative factors in serum dosage offer room for clinical investigation. Major opinion favors repeated large doses exceeding 200,000 units total. This may be fallacious. The observations by Spooner[11], although including but four cases, deserve consideration. These cases were each given a single initial dose of 200,000 units of serum. In brief, seven days after injection there were still 10 units of antitoxin per cc. in the circulating blood (total 50,000 units in circulation), and at the end of 14 days between 3 and 5 units per cc. Since a prophylactic dose of 1,500 units is adequate to protect against even a severe wound, Spooner doubts the advantage of repeating the serum before the tenth day. Cole[11] adopted this method for the last 12 of his 21 cases but drew no conclusions. It may be that a single dose of anti-toxin, and this not necessarily massive, will suffice in all cases where the wound can properly be controlled. The extreme critic might go so far as to doubt any gain by the use of serum, or to suggest that it be used only in cases with the incubation of 10 days or less. One must accept that with the most efficient serum administration the gross mortality from 1916 to 1936 has been about 50 per cent. There are no significantly large series for the same period not treated by serum. Unless one is sufficiently courageous (or foolhardy) to treat a suitable series without serum, we will continue to utilize serum on the assumption that it is saving 10 to 20 per cent of these cases.

CONCLUSIONS

1. A second report of 34 cases of tetanus with a gross mortality of 64.4 per cent is added to a series of 25 cases in 1927 showing a mortality of 36.0 per cent.

2. The combined reports give a total of 59 cases with 31 deaths (53 per cent) for the period 1916 to 1937, all treated by large, repeated doses of antitoxin.

3. The use of serum intra-thecally should be abandoned because of its failure to show profit clinically.

4. Further clinical data are necessary to determine the true efficacy of anti-toxic sera and the quantitative factors involved in its use.

Bibliography, omitted because of lack of space, will be published in reprint of above article.

Diagnostic and Prognostic Value of a Quantitative Test of Blood Serum

CARROLL DeCOURCY, M.D. and OTTO F. THUSS, M.D.

THE physician who has not the opportunity to make use of the complicated methods of a modern laboratory, will always welcome a new test, if the test is simple and not time consuming, and promises to help verify a diagnosis or make a prognosis in certain diseases. That was the reason that blood sedimentation was accepted so easily, a test, inexpensive, simple to make and always correct, a test which has proved its right to existence for the past 15 years. There is no doubt that blood sedimentation has its limits, and we know that normal sedimentation does not differentiate the kind of infection from pregnancy, anemia, or carcinomatosis. It is a test based on a change in the electrical stability of the erythrocytes, a fast sedimentation rate indicating a loss of the electrical charge, causing a lumping of the erythrocytes and as a result of this fact a quicker transportation through the center of the lumen of the blood vessels. It has been known for some time, that parallel with fast sedimentation, there also is a change in the albumin-globulin fraction of the blood serum. It would be interesting to study these changes on a large number of patients if we would have a simple and exact test, but at the present time the estimation of the albumin-globulin ratio is a complicated test, which is time consuming and accurate only in the hands of an experienced technician. In the hope to find something we experimented in this line from different angles and got our inspiration for this flocculation test after we had worked for some time with the Takata-ara test (trying to prove its value in comparison with other liver function tests, which seemed to be undecided at present time).

THE LITERATURE

Going through the literature of the last years concerning the value of the Takata-ara test (as a liver function test) we found many different opinions of authors. For many years we followed the same line of experiments and came to the same conclusion as most, that in the classical picture of cirrhosis of the liver, the test gives brilliant results, but in other cases of hepatic diseases, abscess, carcinoma, hepatitis, congestion, jaundice, etc., the test loses its value and other liver function tests are more exact and sure.

The fact that the clinicians, who are always anxious to find a new test, did not give up the use of the Takata-ara test, gave us the assurance that there must be some value hidden in this reaction, which may lead to some new viewpoints. With this idea in view we modified the test to make comparison easier as we will explain later. For a better understanding it seems advisable to mention the technic of the Takata-ara test as is used by most observers.

Submitted December 14, 1938.

The Authors

● Dr. DeCourcy, Cincinnati, Ohio, is a graduate of the University of Cincinnati, 1904; member of visiting staff, Good Samaritan Hospital, Cincinnati.

● Dr. Thuss, Cincinnati, Ohio, is a graduate of the University of Vienna, 1920; member of visiting staff, Good Samaritan Hospital, Cincinnati.

The method described by Jetzler[1]: 1 cc. of a 0.9 per cent NaCl solution was pippeted in 8 small test tubes, 1 cc. of blood serum was added to the first tube, well mixed, then from this 1 cc. pippeted into the second tube, and so forth to the eighth tube, which gives the following dilution of serum: ½, ¼, ⅛, 1/16, 1/32, 1/64, 1/128, and 1/256. ¼ cc. of a 10 per cent sodium carbonate solution was added and afterwards 0.15 cc. of a 5 per cent solution of mercury bichloride. The tubes are well shaken and left standing for a few hours. Jetzler reading the tubes after 5 and 24 hours called the serum test positive, if there was a flocculation in the last three tubes, the first flocculation starting in dilution of 1/32. A slight positive reaction with a flocculation in two tubes, one of the tubes with a dilution of 1/32. A slight flocculation in only one of the tubes with a dilution of 1/32 or 1/64 he calls physiological. This last point raised our special interest.

According to Chr. Rohrer[2] in his paper "The Takata-ara reaction in diseases of the liver", the colloid chemical flocculation is caused by the mercury solution with sodium carbonate, this colloidal solution of mercuric oxide develops in the presence of protein bodies, with decreased stability of the serum proteins.

Jetzler could prove, there is also an increase in the globulin fraction in the strong positive reactions, a fact, which was also demonstrated by Rohrer, Lazzaro and R. Kirk.

Oeflein[3] showed in his experiments, that the positive outcome of the Takata-ara test is determined by the ammonium iones. Since the liver is the place for the detoxication of the ammonium iones, the amount of the ammonium iones in the blood serum is an indicator for the function of the liver and also responsible for the outcome of

the test. He was able to demonstrate that in all cases of a positive Takata-ara reaction there was an increase in the ammonium content. T. B. Magath[4] in his observation of the Takata-ara test as a liver function test, in a series of 86 cases in connection with the bromsulphalein test, the qualitative and quantitative Van den Berg, in 83 cases and the quantitative determination of protein in 62 cases found; among 25 cases of cirrhosis of the liver only 16 gave a positive Takata-ara reaction and 16 other patients without cirrhosis also gave a positive reaction. He found the correlation between the Takata-ara and the bromsulphalein was not high. Direct Van den Berg reactions were present when 22 Takata-ara tests were positive and 20 were negative.

It is not the intention of this paper, to give a list of the authors and their opinions, but it is hard to understand the great difference of opinion in the literature, which followed the first publication of Takata in 1925.

OUR MODIFICATION

In our belief that there is some value in this test we tried not only to simplify the test, but also to find a method of estimation of the amount of flocculation. The following established technic proved to us to be of value not so much as a liver function test, but more as a new way to study diseases and especially acute and chronic infections.

We used the following technic:

Graduated test tubes 15 ml, for better reading very pointed ones, using three tubes for one test.

Solution: a mixture of 400 cc.—0.8 per cent NaCl. sol. and 40 cc. of a 20 per cent sodium carbonate sol. It is essential to mention here that the best results are obtained by using the dried powder of sodium carbonate instead of the anhydrous salt of the same formulas. This mixture develops a milky cloudiness, which settles as a fine powder at the bottom of the bottle. With this solution fill No. 1 tube up to 7½ cc. the No. 2 and No. 3 tubes up to 4 cc., then ½ cc. of serum is placed in No. 1 tube, mix well and take 4 cc. from this tube and put in No. 2 tube, the same amount from No. 2 tube into No. 3 tube, then we have a dilution of 1/16, 1/32 and 1/64. After shaking a ½ cc. of a 0.5 per cent mercury bichloride solution is added to each tube. As the following photograph shows, there is a milky disturbance at the top of each tube, the strongest in the first and decreasing according to the dilution. We also find very often at the top a red ring of mercuric oxide mostly in the third tube or in the second and third tube.

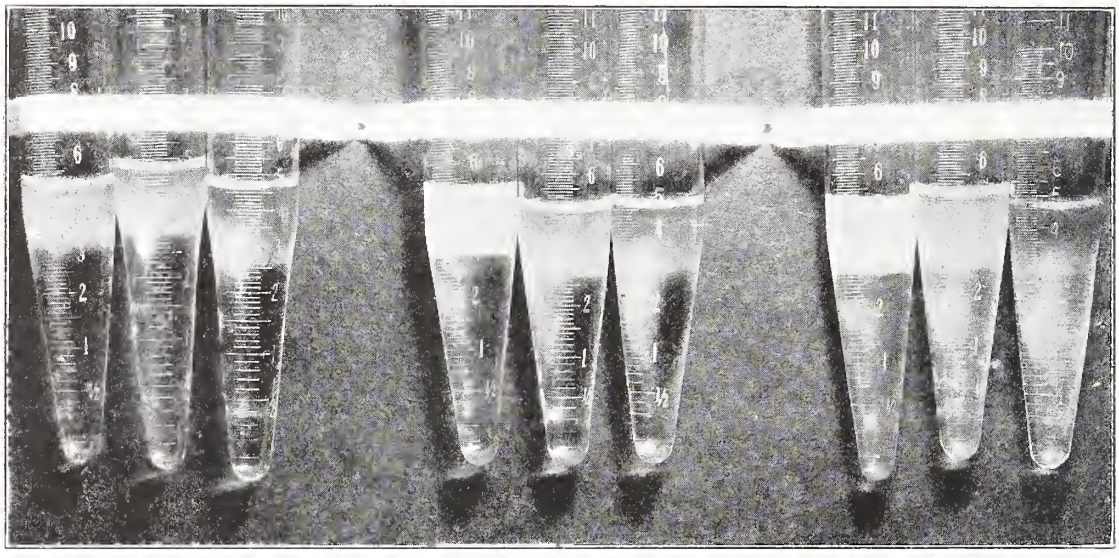


FIG. 1. The tubes as first set up.

After shaking the tubes we place them in the ice box and leave them stand for 12 hours. This time is necessary to develop a flocculation, which as we see later is characteristic for different diseases. We found that this flocculation did not develop, if we left the tubes stand in a warm temperature. The tubes have the appearance as the accompanying pictures show very clearly.

To find the amount of flocculation we used a high speed centrifuge. To have a more constant speed independent upon the small changes in the voltage of the line we exchanged the universal motor with an alternating current motor, which makes 3,400 revolutions per minute, timing automatically with electric clock. The time for centrifuging the tubes is exactly 10 minutes. The reading is made by counting 1/10 cc. as 10, the fractions constructed as possible. The following picture shows the settling of three tests. The first three tubes would then give an approximate reading of 2-12-18 (blood serum from a patient with diabetes and sclerotic changes). The second would read 8-10-22 (chronic cholecystitis). The third would read 3[illegible]-42-20 (alcoholic cirrhosis). In this third case it is to be noted the flocculation test and physical examination showed improvement over one made two months ago. The reading at that time was 50-50-28.

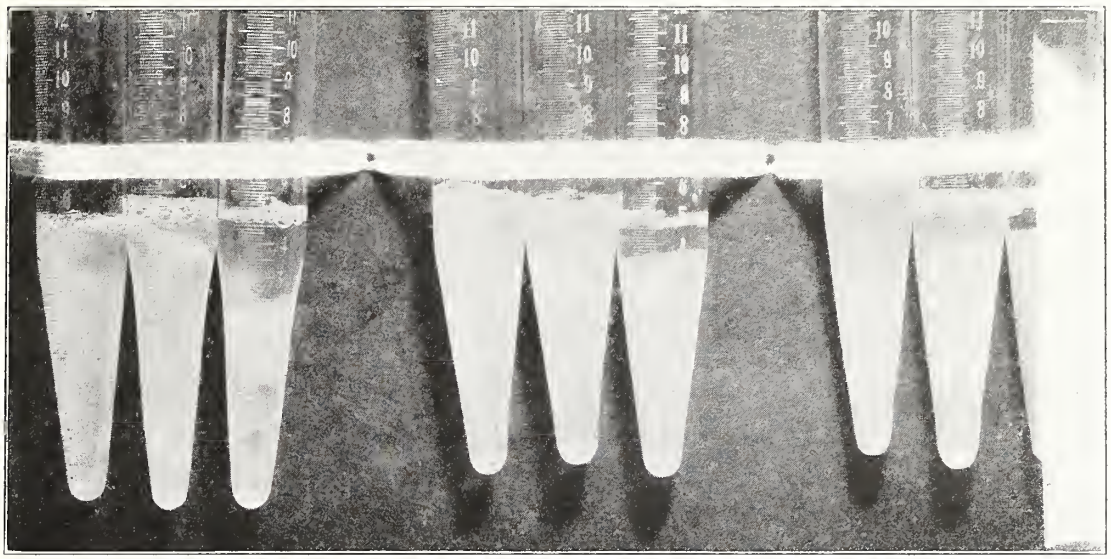


FIG. 2. Appearance of tubes when allowed to stand in ice box without centrifuging.

PRECAUTIONS

We would like to mention a few points we believe are essential to make the tests accurately and to avoid failure and disappointments. The blood is taken with a rather large needle to avoid breakage of the erythrocytes and hemolysis which may interfere. The blood is placed in ice box as soon as possible and kept until ready to make test. Repeated experiments showed that serum kept in ice box for a few days did not change much the outcome of the tests.

It is not necessary to mention that the solutions have to be pure and of the exact concentration, the tubes dry and clean. The tests were made in a basement laboratory where the temperature changes are very small mostly around 70°. The readings are done with a very bright light, a black paper behind the tubes, which allows a good reading as the pictures show.

For correlation, in connection with these tests we made a blood sedimentation with the same blood (using the Westergren method, reading at one hour and at twelve hours).

We have made up to the present time more than 1,000 examinations, finding great difficulty at first to coordinate the results with the physical findings. The only way was to make a great number of examinations on normal individuals and after establishing the normal formula to study the different diseases. As is shown in the following tables: Table No. 1 normal, No. 2 acute infection, No. 3 chronic infection, and No. 4 tuberculosis. No. 5 carcinoma, and No. 6 a variety of different diseases.

For the normal tests we used the blood of normal individuals, who came to the clinic for health examinations and where the physical findings were absolutely negative, with a normal blood count and normal sedimentation. To avoid complications we will use only 10 findings in each table.

TABLE No. 1—NORMAL

No.	Sedimentation	Serum Test	Remarks
5458	0–30	0–8–18	Normal
5445	2–60	0–4–20	Neurasthenia
5441	2–32	0–6–16	Normal
5436	4–63	0–8–16	Normal
5422	2–48	0–6–16	Normal
5421	5–55	0–6–18	Normal
5420	1–50	0–5–17	Normal
5407	1–15	0–8–12	Normal
5392	2–42	0–5–16	Normal
5385	1–60	0–8–20	Normal

We collected about 300 normal cases, which all show similar readings as in the table above, no sediment in the first tube, the second mostly around 6—8, the third around 18. Sometimes there was a very small sediment in the first tube with a reading of 2 or 3, which we may also call normal, especially with serum from females.

TABLE No. 2—ACUTE INFECTION

No.	Sedimentation	Serum Test	Remarks
5439	60–130	0– 4– 8	Appendical abscess
5336	80–130	0– 0– 2	Peritonitis (died)
5408	85–115	2–10–10	Acute pyelitis
6818	70–112	2–10–18	Lobar pneumonia, 2 wks.
5814	42–114	0– 8–10	Endocarditis (Lenta)
5988	46–110	2– 4– 8	Endocarditis
6012	75–115	4– 6– 8	Pyelitis, acute
6170	100–120	4– 6– 8	Lobar pneumonia
6602	45–110	0–10–16	Acute pleurisy
6658	25–110	12–20– 8	Acute cholecystitis with jaundice.

As far as we can judge at present time, there seems to be a diminished amount of settling at the bottom of the tubes, if we are dealing with acute serious infections such as peritonitis, osteomyelitis, empyema, lobar pneumonia, acute pyelitis, etc. Other infections, which, also acute, influence the blood sedimentation rate quickly, do not show a strong change in the flocculation

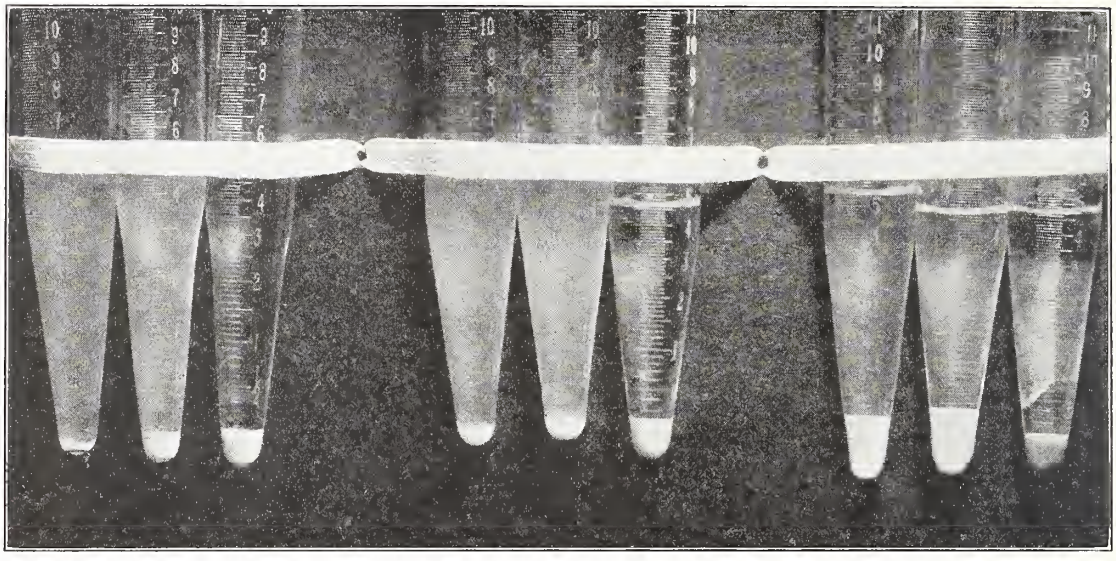


FIG. 3. Appearance of tubes after storage in ice box and centrifuging.

sediment in the very beginning. The serum of a patient who had a normal serum reading, did not show much change even two days after the operation of an acute appendix.

TABLE No. 3—CHRONIC INFECTIONS

No.	Sedimentation	Serum Test	Remarks
6888	6– 60	15–10–12	Ch. gall-bladder
6878	20– 80	10–10–18	Bronchitis
6863	42–125	32–40–20	Unresolved pneumonia, 6 wks.
6836	6– 75	10–22–22	Ch. pyelitis
6821	10– 88	20–20–18	Convalescent pneumonia
6816	35–104	30–25–18	Ch. inf. arthritis
6727	6– 68	20–30–18	Inf. arthritis
6724	2– 50	20–18–16	Parametritis
6688	40–110	22–30–18	Salpingitis
6651	4– 75	22–21–23	Salpingitis

As the table above shows chronic infection leads to a change in the blood serum. Whether the blood sedimentation is fast or normal a chronic infection especially if long standing gives a reading of a sediment in the first tube up to 30 or more. With the improvement of the patient the higher reading seems to move to the second tube. We find that after serious infection it takes a very long time for the flocculation to get back to normal.

TABLE No. 4—TUBERCULOSIS

No.	Sedimentation	Serum Test	Remarks
6877	34–104	2–12–16	Adv. dissem TB
6858	40–115	15–16–21	Adv. TB both lungs
6844	62–120	40–30–18	Thoraplastic (improved)
6808	1– 40	0–12–20	Tb. healed 2 yrs.
6807	6– 58	18–32–20	Not active tb.
6800	24–112	2– 4–12	Pneumothorax still act.
6790	40–100	6–23–15	Adv. tb. both lungs
6754	50–110	2–10– 6	Adv. tb. both lungs
6682	40–110	8–22–14	Same patient not improv.
6715	1– 60	8–22–14	Tb. arrested

Especially in tuberculosis we found the blood sedimentation a welcome test to help make a prognostic statement. For the past 14 years we have been using this method as a monthly check-up on our tuberculous patients. We were quite surprised to find that only about 50 per cent of the cured patients, even the ones who had been dismissed from sanitariums showed a quantitive flocculation reading which we expect in normal individuals. The other ones still had a high reading in the first tube (similar to that found in chronic infections). At the present time we have not observed sufficient readings to make a positive statement but we believe that a normal blood sedimentation plus a normal flocculation reading, definitely proves that the patient is cured. So far we can say that a fast blood semimentation with a low or normal flocculation is a bad symptom; an increase in the flocculation even if the blood sedimentation does not change is favorable.

TABLE No. 5—CARCINOMA

No.	Sedimentation	Serum Test	Remarks
6779	26–110	0–20–13	Inop. Carcin. abdomen
6516	15–122	0–12–12	Scirrh. Ca. Stomach
6467	32–110	0– 8– 5	Ca. abdomen
5429	18– 92	2– 8–10	Prostate Ca.
5527	14– 92	17– 9–14	Prostrate Ca. (bladder infec.)
5362	40–120	4– 4– 0	Stomach Ca.
5165	24–110	5–10–18	Colon Ca. Ascites
5101	50–110	0–12–18	Rectum Ca.
6824	28– 98	10–10–18	Ca. of colon inop.
6602	45–110	0–10–16	Mesast. Ca. lung

It is interesting to note that as a rule carcinoma has no influence on the flocculation of the serum and shows an increase only in cases where an infection complicates the carcinoma, as shown in prostate and rectum. Ca. Advanced Ca. with ascites made a small change. It would seem that the diagnostic value of the flocculation test in suspicion of carcinoma would be, if we have a fast blood sedimentation (which is not explained by anemia, pregnancy, etc., and a more or less

normal flocculation reading). There is no doubt that both tests are without value in early cancer diagnosis.

TABLE No. 6—MISCELLANEOUS

No.	Sedimentation	Serum Test	Remarks
6843	30–105	22–32–20	Wassermann 4 plus, Sec. erupt
6849	3– 57	2–12–17	Diabetes
6826	28– 98	9–12–18	Sec. anaemia
6822	3– 57	4–12–14	Wass. 3 plus. latent lues
6813	2– 55	10–12–20	Stomach ulcer
6781	24–100	0–10–15	Pregnancy 7 mo.
6780	28–115	0–10–15	Diabetes loss of wt.
6777	46–118	16–40–10	Pregnancy 8 mo. eclamptic
6773	18– 70	20–38–18	Wassermann 4 plus aortitis
6769	4– 65	0–10–12	Pagets Disease
6669	1– 55	0–12–16	Ess. Hypertension

It would be tiresome to show readings of almost any disease that comes in the hands of the physician, it seems to us, that only the infectious moment of the disease is responsible for a change in the flocculation. It is interesting to study the syphilitic cases, where in a 4 plus Wassermann the flocculation changes, only, if we deal with an acute condition (as the increase in the blood sedimentation rate also shows).

In stomach ulcer the flocculation was increased, seldom higher than 10 in the first tube, (where on the other hand the blood sedimentation rate stays unchanged), we have the impression that the local, probably infectious irritation around the ulceration is responsible. Pregnancy did not influence the test in normal women, but there was a rapid change, if any kidney disorder was leading to the danger of eclampsia.

Diabetes, pernicious anemia, arterio-sclerosis, essential hypertension and many other diseases, where the infectious background was missing, all gave a more or less normal reading, (normal if first tube was 0 and the settling in the third tube the highest).

COMMENT

Since we introduced the flocculation test, as routine, on all of our patients, our attention was concentrated to find the coordination with the physical and laboratory findings. We have not tried to find, at the present time, the causes for the flocculation, as we were convinced of the difficulty of this task. A coming paper will be prepared for these studies. We know that there is no parallelism between the outcome of this flocculation test and the albumin-globulin ratio; we know that there is no parallelism between sedimentation and flocculation, but we have a very strong feeling, that some factor in the albumin or globulin fraction may be responsible. Blood serum is a complicated mixture of many components, our knowledge of them is only partly known. Peters & Van Slyke in their book "Quantitative and Clinical Chemistry" write as follows:

"The globulins other than fibrogen in reality include at least two different proteins, as shown by Sorensen, and there is no certainty that the albumin fraction represents a single protein. The albumin and globulin fractions, even though each represents a group of substances rather than a clinical unit, show somewhat characteristic behavior in certain clinical conditions. The behavior of separate members have not been studied."

The time is too short to have a clear view of this phenomenon but in studying the infectious diseases by making repeated flocculations tests on the same patient, we have the impression that the increased sediment of the flocculation is the expression of an increased immunity. To prove the correctness of this we will cite only one case report:

Mr. D. B., 59 years old, contracted an acute cellulitis of the right lower leg over the same area, where he had an acute osteomyelitis 32 years ago. The onset Sept. 8, and patient seen two days later. Temperature, 103°, pulse 110. The leg showed a large area of inflammation with formation of abscess in center, the fever subsided after eight days under the usual treatment of bed rest and wet dressings. The physical examination of heart, lungs, nose and throat negative. The report of the flocculation was as follows:

	Sedimentation	Flocculation
Sept. 11	22—104	0— 0— 2
Sept. 14	16—100	2— 3— 7
Sept. 23	30—115	10—14—10
Oct. 4	20— 76	

After this time the patient was normal, the last test was taken exactly one year later. Sedimentation 12—82 and the flocculation 0—25—18.

We have many similar reports and are satisfied with the prognosis, when in serious infections the flocculation shows a gradual increase in the sediment.

SUMMARY

In tuberculous cases this test has a similar value, we not only judge the physical improvement, but the sedimentation rate and the increase of sediment of flocculation, to dismiss a patient as cured we expect not only a normal sedimentation, but also a normal reading of the flocculation sediment. In syphilis there is a marked parallelism between the blood sedimentation and the flocculation sediment, we have not found the flocculation an indicator of treatment. Neurosyphilis was found to have no influence on flocculation even in advanced cases.

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Differential Diagnosis of Right Upper Quadrant Pain

H. S. APPLEBAUM, M.D.

THE diagnosis of right upper quadrant pain often presents one of the most difficult and intriguing problems in the entire field of medicine. Permit me to mention some of the more important conditions which either have the location of, or are referable to, that region:

1) Coronary disease
2) Pericarditis with effusion
3) Pneumonia and pulmonary infarction
4) Disease of the pleura { pleurisy, diaphragmatic pleurisy
5) Gall-bladder disease { cholelithiasis, infection, tumors
6) Liver disease { tumor, cysts, malignancy, chronic passive congestion
7) Sub-diaphragmatic abscess
8) Renal disease { hydronephrosis, tumors, perirenal infection, calculi
9) Stomach disease { pylorospasm, gastric and duodenal ulcer, perforating or penetrating ulcer, malignancy, cicatrices
10) High appendix
11) Tabes dorsalis and root pains due to tumors and inflammatory processes
12) Herpes Zoster
13) Intestinal obstruction
14) Allergy—angio-neurotic edema
15) Neurosis
16) Lead colic
17) Diabetes
18) Regional colitis (hepatic flexure) or irritible colon
19) Intercostal neuralgia
20) Disease of the ribs
21) Miscellaneous (tumors of diaphragm, duodenal diverticulum, cysts and hemangiomata of the liver, etc., too rare to warrant discussion in this paper)

This is indeed a formidable and bewildering array of possibilities. How are we to proceed, to arrive at a correct diagnosis? A few suggestions may be helpful. The first important step in the diagnosis is to determine whether the lesion is above or below the diaphragm. This will at once narrow down the number of possibilities to be considered. As a rule this determination is not difficult. However, on those occasions when there is doubt, one proceeds to rule out the lesions above the diaphragm first, and the most important of these is

Coronary thrombosis. Failure to determine this condition may end disastrously for the patient. An electrocardiogram is the most valuable single laboratory test in that direction. Clinically there is almost always a drop in blood pressure, and a pericardial friction rub and change in the rhythm often occur. As a rule there is a history of angina on effort, or dyspnea and palpitation on exertion, and attacks of cardiac asthma. An important differential point between a coronary obstruction and gall-bladder colic is that in the latter, the patient will roll all over the bed with pain, whereas in coronary occlusion the patient is more or less in shock and therefore lies quietly in bed—he is unable to move. I have found this a valuable differential point in a few cases. Of course, this sign as well as any other single sign is not to be taken alone, but in correlation with others, to make a diagnosis.

Pneumonia. We are all familiar with the abdominal signs in pneumonia. The most valuable early sign of pneumonia is the suspicion that it might be present. Other important early symptoms are rapid respiratory rate (even with small involvement), herpes labialis, expiratory grunt, and whispered broncophony. If still in doubt, an X-ray of the chest will be found most helpful.

Pleurisy is usually easily recognized by the physical findings, and hence I shall not discuss it further, except to say that repeated attacks of pleurisy should make one suspicious not only of tuberculosis but also of malignancy. Subdiaphragmatic pleurisy, however, may offer some difficulty. In the presence of pneumonia, or when a friction rub is audible, diaphragmatic pleurisy will suggest itself at once. However, in the absence of the above, referred pain to the neck on the same side is the most valuable sign. This may be aggravated by coughing and deep inspiration. Evidence of respiratory infection is

The Author

● Dr. Applebaum, Cleveland, is a graduate of Johns Hopkins University Medical School, 1916; associate in medicine at Mount Sinai Hospital, Cleveland.

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From the medical department, Mt. Sinai Hospital, Cleveland, Ohio.

usually present. Deep pressure with the flat of the fingers brings forth no tenderness in diaphragmatic pleurisy, but will elicit tenderness in an inflamed abdominal organ.

Infarction of the Lung. Sudden onset of pain, cough, hemoptysis, pleural friction, rales, impairment of percussion which develop in a patient who has been operated on, or one who has heart disease, or one who is in the puerperium, should always make one suspicious of infarction of the lung.

In **pericarditis** with effusion, there is usually a history of rheumatic infection, pain in the chest, dyspnea, cyanosis, rapid pulse, and early in the disease a to-and-fro friction; later, when effusion has supervened, the characteristic pear-shaped outline can be made out by percussion, or, better yet, by the X-ray.

This completes the major lesions above the diaphragm that may give referred pain to the right upper quadrant.

Gall Bladder Disease, acute and chronic. This is the most common cause of right upper quadrant pain, which is not surprising when one bears in mind that the frequency of gall-bladder disease in adults runs about 25 per cent and even higher in women. The typical attack with pain, tenderness, rigidity or a palpable mass in the right upper quadrant, accompanied by chills, fever, leucocytosis, nausea and vomiting, will offer no difficulty of diagnosis, especially if there is an associated jaundice. Without jaundice this may at times be confused with a high acute appendicitis which presents a similar picture. However, since surgery is indicated in both conditions, the differentiation becomes of secondary importance. Of far greater importance is the recognition of a coronary occlusion which may simulate it and which has been discussed before. (Of course it is possible to have the two conditions coexistent). The chronic cholecystitis, with or without stones, may offer some difficulty. In general, chronic indigestion, especially in obese women, should always attract attention to the gall-bladder. Duodenal drainage and cholecystogram should occupy first place in the investigation. In time, of course, there may be an acute exacerbation which will clinch the diagnosis, but on account of the complications which may follow, such as calculi, hepatitis, pancreatitis, an early diagnosis becomes imperative.

Liver Disease. a) Abscesses. Chills, high fever, leucocytosis, icterus, tenderness and edema of chest wall suggest liver abscess.

b) Tumors. The enlarged liver with or without jaundice will promptly focus the attention to that organ. But here, as in other diseases, one must determine whether the disease is primary in the liver or metastatic from some other organ.

c) Chronic passive congestion often gives pain by sudden distension of the capsule, but here the cardiac failure is evident.

Subphrenic Abscess with its high diaphragm may often be mistaken for pleurisy. The sepsis, high leucocyte count, with referred pain to the shoulder suggest the former, especially if it occurs postoperatively. But the high, fixed diaphragm will give the diagnosis away. Of course, if there is an associated pleurisy, exploratory needling may have to be resorted to.

Renal Disease. The localized kidney tenderness, the radiation of the pain, the urinary disturbance, the presence of pus and blood in the urine, or palpable tumor will readily differentiate this from other conditions. Occasionally a distended gall bladder or a tumor in that region may offer some difficulty. Cystoscopic examination and pyelography will aid in the diagnosis.

Stomach Disease. Where the symptoms are not typical, there may be confusion. I recall a case of an elderly woman who was diagnosed by a good internist as suffering from cholecystitis. Cholecystography revealed no filling. Patient had a good deal of digestive disturbance and submitted to surgery. I raised the question of a gastro-intestinal series, but was advised against it. At operation the gall bladder was perfectly normal, but two duodenal ulcers were found, with considerable gastritis, necessitating gastric resection. This emphasizes the importance of investigation, especially roentgenologically, of both the gastro-intestinal and the biliary tracts in all cases of digestive disturbance when either system is suspected. Gastric disturbances may be associated with any organic disease of the digestive tracts, i.e., cholecystitis, cholelithiasis, malignancy, gastritis, gastroptosis, pylorospasm—not to mention reflex, systemic and functional causes, and if atypical may be entirely overlooked. Gall-bladder disease is often the cause of pylorospasm. Adhesions of the duodenum to the gall-bladder may give symptoms suggestive of cholecystitis. A penetrating or perforating duodenal ulcer often gives pain referred to the right upper quadrant. A perforated ulcer will as a rule show gas under the diaphragm promptly after perforation. This is the most valuable early sign and, together with the typical history, establishes the diagnosis.

High Appendix. It is not often that one can easily recognize this condition, but the sequence of pain, nausea, vomiting, fever, leucocytosis should make one suspicious of it when such symptoms cannot be definitely ascribed to any organ normally located at this point of origin.

Tabes Dorsalis. Tabetic crisis is often not thought of as a possibility in the differential diagnosis of right upper quadrant pain radiating to the back. I recall a patient who was subjected to surgery for cholecystitis because of failure to examine the pupils and to test the knee reflex.

A Wasserman test on the spinal fluid will confirm the diagnosis. A similar error is occasionally made because one does not bear in mind the possibility of root pains due to tumors or inflammatory processes of the spine. Local tenderness and X-ray will usually solve the problem.

Herpes Zoster. I recall an elderly lady who complained of severe pain in the right upper quadrant radiating to the back. In removing the hot water bottle which she had applied to that region, I noticed one lesion which resembled a burn, caused, I thought, by the hot water bottle, and I diagnosed the condition as a cholecystitis. It turned out to be a real case of herpes zoster. Before the appearance of vesiculation a correct diagnosis cannot be made. However, it should always be suspected when no adequate cause for the pain can be found.

Obstruction of the bowel from any cause (ileus, volvulus, intussusception, strictures, malignancy, or perforation by a gall stone) may start with pains in the right upper quadrant, but the abdominal distention, constipation, fecal vomiting which promptly follow, will cause no confusion. In this connection let me stress the point that cramps from obstruction of the small intestine occur at shorter intervals than those from obstruction of the large bowel.

Allergy. There is no doubt that many more cases than we suspect of right upper quadrant pain are due to allergy. Many of these cases undergo surgical operations because of mistaken diagnosis. In a patient who gives a history of urticaria or angio-neurotic edema, has a high eosinophile count, and is accorded relief by adrenalin, one should make sure of his ground before submitting the patient to operation. While a correct diagnosis of allergy is not always possible, keeping this condition in mind will tend toward conservatism in surgery in this type of case.

Neurosis. It is my opinion that it is hazardous for the internist to make this diagnosis. The moment the patient is labeled a neurotic, further investigation is discontinued, and, as a rule, all future complaints are attributed entirely to his neurosis. I can cite many cases whom we originally labeled as neurotic only to discover later, to our chagrin, that the patients suffered from malignancy, brain tumor, multiple sclerosis, etc. It is best to leave this type of patient undiagnosed, so he may return for repeated physical examination to rule out slowly developing organic disease before he is relegated to the limbo of neurosis. It is too often overlooked that the underlying pathological condition itself may set up an associated neurosis. One should treat the element of neurosis in every patient, but let it not be used as a cloak to cover our ignorance.

Lead Colic may at times give pain in the right upper quadrant. A history of contact with lead, a lead line, basophilic stippling, constipation, and the recovery of lead from the urine will give the clue. When in association with the above findings there are also palsies, the diagnosis is easy.

Pancreatitis. The diagnosis is difficult. However, since acute pancreatitis constitutes less than 1 per cent[3] of abdominal catastrophies, it is not a factor of great concern. But after all, it is not so important to make a correct diagnosis of acute pancreatitis as it is to make a diagnosis of an acute surgical lesion in the upper part of the abdomen, which leads to surgery.[3] From the laboratory point of view there is an increase of diastase in the blood and urine. Normally the urine contains from 10 to 20 units of diastase. In acute pancreatitis this may be increased to 100 or 200 units, constituting a reliable corroborative symptom.[3]

Diabetes. Diabetes will often give pain in the right upper quadrant. No satisfactory explanation has been found, but I have seen it in two cases. Both were pre-diabetic coma patients. This condition will give no difficulty, for with recognition and treatment of the diabetes this phenomenon will disappear.

Regional Colitis. A certain number (according to Crohn) will start in the region of the hepatic flexure and gradually extend in both directions. The tenderness here is more in the region of the umbilicus. There is moderate diarrhea, anemia, fever. X-ray will promptly reveal the true condition. Irritable colon, spastic colitis, mucous colitis will often give referred pain to the right upper quadrant. Proctoscopic examination and barium enema, and a stool examination in the latter, will clarify the confusion.

Intercostal Neuralgia. Here there is tenderness in the abdominal wall along the course of the intercostal nerves, with sharply localized points of tenderness at the tips of the ninth and tenth ribs.[2]

Disease of the Lower Right Ribs Anteriorily. In rib fracture there is usually a history of trauma and marked localized tenderness. In spontaneous fractures due to new growths (sarcoma, carcinoma primary and metastatic, multiple myelomata) the X-ray will promptly disclose the true condition. Chondritis will as a rule give signs of localized inflammatory changes, i.e., tenderness, redness, swelling, etc. A good history, physical examination, blood Wassermann will usually reveal the nature of the infection.

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Physician's Duties and Relationships in Industry

ARTHUR J. TRONSTEIN, A.B., M.D.

MODERN industrial life involves almost every phase of society. The physician is no exception, and his peculiar position is quite complicated. We shall attempt to discuss some of his more common problems, not so much from the medical aspect, as from the place the physician shall hold in the management of these.

The industrial doctor must attempt to serve all concerned with justice, art and science. His duties will force upon him many considerations aside from those of a definitely technical nature, but neither legal problems, social views, monetary awards, friendship, etc., must interfere with his first duty as a physician; to practice good medicine and thus help raise the standards of his profession. Often sufficient pressure will be placed upon him to make this a hard thing to do. Business firms are prone to look upon medical services in much the same light as they do other materials they purchase for the running of their business. However, most of the better firms have come to find that good medical service, properly paid for, unhampered within reason, and administered in good faith, is still a wise investment.

We shall attempt to discuss the physician's duties and relationships in industry as based upon our experience as medical director of the Pharis Rubber & Tire Co. of Newark, Ohio, (approximately 500 employes) and the Ohio Power Co. of Newark, Ohio, (approximately 400 employes) whose cooperation we have enjoyed for the past two years.

PRE-EMPLOYMENT EXAMINATION

Many firms are finding it well worth while to examine all applicants for employment. This is done mainly to prevent the employment of persons likely to prove an economic problem to the firm for one or more reasons. This may be because some defect would prove later to be an Industrial Commission case (notably herniae), or because he may be subject to long lay-offs from illness. While this is the primary reason for such an examination, certainly neither the physician nor the applicant has anything to lose by it.

Here let us point out certain non-technical aspects. One should have it clearly understood by all concerned that regardless of the fact that the company may be paying for the examination, the physician can not divulge any information obtained from it or its attending laboratory work, etc., unless the applicant is willing to allow this. This permission should be written, and properly witnessed before anything is done. It should be well understood that the physician is in no way responsible for the hiring or failure to hire of the applicant. The physician's only connection is to report such findings as he feels of note, possibly explain them briefly, and allow the firm to decide if the patient is fit for the job. The doctor will be wise to impress this upon the applicant before starting. In some cases the employer may delay employment until the defect is corrected, but the physician should guard that he doesn't create the impression that correction of a defect is a guarantee of employment. The job may be filled in the meantime. Remember also that a defect may be noteworthy for one type of job, but not for another. Allow the employer to decide if it is.

The degree of care and detail used in making the examination requires as much common-sense as it does skill. The main purpose of the examination is to determine if there is any reason why the party may not be employed, not to seek for every petty pathological condition which might make the man anything short of 100 per cent healthy. Petty defects, such as dirty teeth, skin blemishes, cerumen in the ears, etc., while of interest to the patient, mean very little to the employer. These defects may be pointed out to the patient, but need not be called to the attention of the firm. Where abnormalities of note do exist, report them promptly and in some detail to the employer. He may ask for a brief explanation of them, and also ask your opinion as to their future outlook.

THE HISTORY

The complete examination consists of history, physical examination, and laboratory work. The history of the applicant should only bear upon such points as shall have to do with his ability to work steadily. First determine if he is in good health at the present time as far as he knows. If he is not, notify the employer, and await his verdict as to whether you shall continue. Next consider his family and marital history. Look for nervous diseases, mental cases, tuberculosis, syphilis, contagious diseases, family abnormalities, and similar details. In considering the past history, note all operations, severe injuries, war

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The Author

● Dr. Tronstein, Newark, Ohio, is a graduate of Ohio State University College of Medicine, 1935; member visiting staff, Newark City Hospital.

wounds, shell-shock, gas or vapor poisonings, infectious diseases, etc., which have possibly left some impairment of function in their wake. Inquire concerning venereal diseases, but do not trust statements of a "pure past". Take good note of allergic conditions, vaccinations, serum therapy, innoculations, etc., related in this manner. Investigate thoroughly all symptoms relating to the cardiac-vascular-renal system. Considerable light along these lines may be found by inquiry as to whether the patient was ever refused insurance, kept out of school for long periods of time, dismissed from athletics, or refused employment at other concerns for medical reasons. Inquiry should also be made as to type of work the patient has previously done with special reference to the possibility of occupational diseases lying dormant (silicosis, lead poisoning, etc.) since these may become active later.

PHYSICAL EXAMINATION

Before starting the actual physical examination, make note of the applicant's general appearance, his gait, his posture, his ability to respond to orders or questions, and his general ability to coordinate motions. Height, weight, age, sex, marital state, color, and temperature are then recorded. Next test his visual acuity, color blindness, reaction of pupils, and make note of any other pathology. Mild reduction of vision should be noted for the employer with your recommendation as to whether glasses would be of value. Allow the employer to determine if the eyesight is good enough for the particular job involved. The same may be said of reduced hearing as tested by any convenient means. Generally, reduced, but not greatly impaired hearing, is not a big point in these cases. Nasal obstructions, polyps, perforations of the septum, etc., are to be noted, and also any evidences of sinusitis, allergic rhinitis, etc. are noted. In inspecting the mouth record any evidences of lues, ulcerative conditions, and especially Vincent's infection. Poor hygiene, caries, etc., are not of great importance, but should be recorded, and the patient instructed to see his dentist at once. All glands and lymphatics (especially the inguinals) are next inspected closely. The neck is examined carefully for goiters, and also careful note is made of distended cervical vessels as pointing to cardiac damage.

The breasts are next inspected. This is especially important in the female. Transillumination and palpation are very valuable here. An ordinary flash-light may be used if desired, but keep the focus as small as it can be made. Next the condition of the pulse, radial vessels, blood-pressure, heart, lungs, and thoracic contour are most carefully examined. Even minor abnormalities in these should be noted in detail, and these points explained to the employer. One may add here that high blood pressure readings, rapid pulse rates, irregularities of the pulse, and certain similar conditions may be from psychic stimulation, and should be carefully investigated in all fairness to the applicant. If any doubt does exist, delay judgment until all investigation has been completed. The abdomen is inspected and examined as usual. Tenderness, masses and scars are noted and evaluated. With the patient standing, test for hernias or relaxed rings. Usually even a mild degree of relaxation (especially of the internal rings) will prevent employment as the firms are very strict in this respect. However, your opinion as to the use of a truss may be the determining factor, but usually the firm will not consider this unless it is a special case. Vaginal examinations are not generally done, but may be if any indication is present. This is very true if early pregnancy is suspected or any pelvic condition is suspected. The genitals, rectal region and surrounding parts are carefully examined for venereal diseases, contagious conditions, hemorrhoids, pilo-nidal cysts, fistulae, etc. These are not rarely found and were heretofore unknown to the applicant.

The extremities are inspected for function, shape and muscle-tone. Make note of varicosities and ulceration. The skin is closely inspected with special attention to contagious lesions, veneral lesions, and tumor masses. The usual reflexes are tested, and all pathological responses carefully followed.

LABORATORY EXAMINATION

The laboratory work consists of a Wassermann (or substitute) and examination of the urine. This latter is tested for specific gravity, albumin, sugar, and gross bile or blood. Remember that even in normal persons, transient traces of albumin or sugar may be present. In fairness to all, check these over again the next day if any doubt exists. To avoid deception by the occasional offender, have all specimens voided in your presence. One wise (?) applicant knowing he had diabetes obligingly brought me his brother's urine. This may happen also with those having a urethral discharge which they seek to cover.

AMBULATORY ILLNESS

In many plants a full-time doctor is present to treat such ambulatory illness as arises. This policy has many advantages, but the bulk of the employers do not have such services available. It is very common for conditions to arise which require medical attention in order that the employee may go on well with his or her work. Such common ailments as headaches, painful menses, vertigo, and similar complaints are seen daily in plants. Too often these complaints are treated by a company nurse or some person less well trained than this, and are never seen by a physician. For example, the worker developes a headache. He goes to the first-aid room, tells the attendant,

and is given aspirin (or some other analgesic sold to a lay purchasing agent by a drug salesman at a bargain price). In other cases the employee merely looks over the shelves, and helps himself to whatever looks good to him. These methods are to be severely criticized. The employer will find them a poor investment from the economic view alone if he is shown that such methods will lead to longer periods of illness, malingering, and even more serious factors. No doubt that legally he may find himself in trouble if his lay-attendant ruptures an appendix for an employee by giving him "a dose of salts" for his bellyache. The employer should also be shown that being quarantined either in part or as a whole may prove the costly sequence to allowing his attendant to guess if a condition is a contagious one. Many less severe diseases such as Vincent's, trichimoniasis, etc., have been spread through plants with resultant expense just this same way. Any employer will find these facts interesting from the economic viewpoint.

Where no full-time physician is available in the plant, and this is the more common practice, several courses are open. In some factories the doctor visits the plant daily at regular times, and sees all the ambulatory illness at once. He may, if he feels it best, order such medicine, materials, manipulations, etc., as are provided by the company, and allow the attendant to carry out these orders. He should be certain that the attendant is capable of following orders accurately, and also that this attendant will not do anything unless ordered to do so. The physician should not forget that he is possibly legally responsible for the acts of this person. If the attendant is found taking such responsibility upon himself without orders, dismissal should follow. Let us add here that sometimes the industrial doctor finds some product peculiarly well suited for a condition common in the particular industry. Such preparations are often unknown to the average practitioner. Only too frequently these "stock" medicines are dispensed ad lib by the attendant to every patient that has any condition that even faintly looks like the one it was intended for. They should never be used unless ordered by the doctor, and there is no reason why the company doctor can not suggest these preparations to the private doctor, and then allow him to use his own judgment as to whether they are to be used or not.

If illness arises when the regular visiting time by the company doctor seems too long off, the worker should be allowed to leave his work long enough to see his own doctor. Usually if this is done on his own time, a goodly amount of the ailments will be found to be less severe, and the patient will not find it so necessary to have immediate medical care. He can go to the private doctor after working hours. These same remarks hold true where there is no regular visiting doctor. Let us also say that only those ailments arising as a result of occupation or which need attention at once should be treated by the company physician, and even then only if the employe specifically agrees to being treated by him. The more the company doctor treats, the less the patient has to say about his choice of doctors. Also the more medicine practiced in the plant, the less there is left for private practice. Too often the employees use the company physician merely to avoid personal expense. Since this apparently is easy to do, the practice is spreading rapidly. Ultimately this will lead to poorer standards and economically poorer private doctors. A patient well enough to go to the first-aid attendant or the factory doctor is also well enough to see his own doctor. If he is too sick for this, he should go home, and get private care there. The care of ambulatory illness in the factory by a company doctor should be limited as much as possible, not encouraged to grow.

INDUSTRIAL ACCIDENTS

Before going into this matter, let us say at once that we shall make no great attempt to discuss the technical details of caring for the lesions. This is too large a subject for this paper. Our purpose is to show what shall be expected of the company doctor as far as the handling of the accidents goes.

Most accidents could be avoided, and it is a proper function of the industrial doctor to help in prevention. His cooperation with the safety engineer, employee's committee, etc., will always be welcome. Much of his help may be furnished without his actually being in the plant. His records and his observations from them are most useful. If the same individual seems to be having frequent accidents, he should be investigated for the reason for this. Sometimes a physical defect not noted heretofore is the reason. Other times it may be his specific job creating undue hazards. Where the same type of accident or occupational disease seems to appear in large numbers, the physician should call this to the attention of the proper authorities. The various functions of the body are often impaired by the foreign materials in the air, or from handling of chemicals, or from peculiar postures, undue heat or cold, exposure to radio-active substances, etc. The company physician may be of invaluable aid if he will study his records, his X-rays, laboratory reports, etc., to see the various changes in the skin, lungs, eyes, heart, and other organs as they are subjected to the factors noted. Often, too, the doctor may be able to prevent damage by noting these evils in the factory, and carefully studying various employees subjected to them to see if any ailment is lying dormant or is in an incipient stage. Much

good legislation and safety regulation has found its champion in the industrial doctor.

Aside from the actual care for the patient, many aspects need consideration. In most states the rules of the Industrial Commission very definitely state that the employee is to have full freedom of choice of physicians. Never forget this. When an accident happens, it should be well established that the patient made no specific choice before the company doctor is called to attend him. If the patient has made a choice, then every effort to reach that private doctor should be made, and if this fails, allow him to decide if he wishes the industrial doctor or cares to name a second choice. If the company doctor renders immediate service, and later the patient wishes his family doctor, the company man should willingly step aside or be willing to cooperate with the family doctor. High-handed methods forcing a company doctor upon an employee will in no way add to the prestige of the medical profession or the doctor himself. The law does not permit, nor does it require the employer to name the doctor for an injured employe. It merely requires him to provide some type of compensation for these accidents.

When an accident does happen, much will depend upon the facilities of the particular plant. In each major division of the plant there should be an adequate first-aid box and somebody properly instructed to use it. These boxes are not expensive, and usually can be kept in some convenient place. Frequent inspection of these should be made to see that they are well-stocked. If there is a regular first-aid room or dispensary, these boxes may not be needed. If a company doctor is present when the accident occurs, nobody should do anything for the patient until he is seen by the doctor. If the doctor is not present, first-aid as instructed by the doctor beforehand should be rendered, and the proper doctor called at once. Nothing more must be allowed to be done by the attendant.

No accident, no matter how trivial, should be dismissed until seen by the doctor and dismissed by him. Good records of even the most minor accident are of much value, especially where later complications arise.

Much that was said about attendants and nurses in our discussion of ambulatory illness applies here. It has been our common experience to see ugly scars, lock-jaw, contractures, infections and the like following the "care" given them by unauthorized persons. Only a physician is capable of diagnosing and treating. If attendants can not or will not realize this, they should be dismissed. Very frequently compensation is denied the employee because he didn't have recognized care from the start. On the other hand, the industrial doctor should not seek to make big fees by over-treating cases. This will only lead to lowering of fee schedules by the Industrial Commission, and is certainly not fair to the employer.

SANITATION AND HYGIENE

The problems of hygiene, sanitation, light, temperature, etc., are for the most part those needing the services of regularly trained men, but frequently the doctor's advice will be the basis upon which these men operate.

It should be the duty of the doctor to help see that washstands, toilets and drinking fountains are kept free from contamination by persons unfit to use them. This is often a hard problem. One can not inspect each individual using them, but he can help get the employees to cooperate, and to properly instruct them. Certainly he can help solve individual problems as they arise.

CONTAGIONS

Persons having venereal diseases, trichimoniasis, local abscesses, body lice, scabies, vaginal discharges, etc., should be furnished with a commode rather than to be allowed the use of toilets used by others. The care of such patients should be left to the private doctor, and the patient should be kept from using toilets until he has been completely cured or rendered non-contagious. It may seem advisable to dismiss the employee until he is able to safely use the facilities, but this should be left to the employer's discretion. As an added precaution, the company doctor may inspect the patient before allowing him to return even though he may claim his own doctor has discharged him as cured.

Drinking fountains present much the same problems. Here the chief offenders are Vincent's, local lesions of poor hygiene, luetic lesions and tuberculosis. The management of these problems is much the same as above.

Wash-rooms, showers, and locker-rooms are common sources for the spread of "athlete's foot", parasites, scabies, etc. Frequent cleansing and disinfection are needed to keep these conditions to their minimum. Those who know they carry such conditions should be excluded from the use of the fixtures. If no other facilities are available, these persons should be given their own basin (an enameled dish-pan will serve well) and be requested to use this only.

Where contamination has taken place or is suspected of having occurred, thorough disinfection under direction of the doctor should be done before continuing use of these facilities. The local health officers will be able to give good cooperation along these lines. Sometimes the help of these authorities will make it possible to enforce rules where orders from one with less standing may be ignored or resented. At this time let us point out that segregating suspected carriers or insisting upon examination of par-

ticular groups may lead to complications with certain recent labor legislation which forbids discriminatory action. Just whether this particular problem is involved is difficult to say at present, but it has been encountered already, and has made things rather complicated. It will be wise to seek advice on the matter before doing anything drastic.

WORKING CONDITIONS

The details of discussion concerning temperature, illumination, humidity, etc., have been well attended to be other writers. These problems for the most part are usually solved by proper engineers. In passing one might remark that with the increased use of "air-conditioning" there has been an increased abuse of these devices. Usually they are not adjusted properly so that the rooms are kept too cold in proportion to outdoor temperature. A difference of 10 degrees F is the maximum suggested. Further study of the effects of this abuse will be made later.

GROUP INSURANCE, HOSPITAL SERVICE PLANS, ETC.

In the past few years there has been a great increase in the adoption of various forms of collective service plans whereby employees as such are supposed to derive better medical care in case of illness, disability or death. Much of this growth may be explained by saying that the private insurance firms have found this a rich field to work. A goodly part of this is due to promotion of less ethical schemes. Political activities, publicity promoters for clubs, lodges and fraternal organizations and similar groups are acting as sponsors for all sorts of these schemes. We do not feel that all of these plans are detrimental to our profession, but most certainly a large number of them are. Since the background of these plans lies in the field of medicine, it becomes a logical place for the investigation of the industrial doctor. If he honestly feels the plan under consideration is sound and will help solve some problem in this professional life, he may honestly recommend it. If he feels that it is not best for the practice of good medicine, he should feel duty-bound to oppose it to the end. One can at least say he should investigate any proposed plan carefully before expressing an opinion on the subject.

We suggest the following points as a background for the formation of this opinion. First, is there a need for collective action or could the individual obtain this protection for himself if he so chose? Usually he could. Second, if there is a need for collective action, will the plan proposed prove adequate? The idea of adequacy should be based upon consideration of many aspects. Adequacy assures that the plan will meet most of the peculiar disabilities found in the particular industry involved, and will not make these exceptions exempt from payment of benefits. It also implies that all age groups used in the industry will receive benefits since age is often a determining factor in a man's ability to hold a certain job. If his youth or age are to be made points of exemption, such a plan should be opposed since he will be paying for something he may never be able to benefit by. Benefits should be paid long enough to cover the longer types of disability common in the industry, and should not be limited to only those of short duration. Finally, adequacy means that the benefits derived are to be in decent proportion to the risks involved by the occupation of the member.

Third consideration is the financial end of the deal. Here the help of a good attorney is very valuable. Often the firm has its own who will be glad to help. Most certainly he should make sure the sponsor or promulgator of the plan has a legal right to do so, and is legally able to contract for such a plan. Insurance laws of the various states differ, but basically they state that insurance or corporation activities are limited to such firms or groups as are legally recognized by state law. Many such plans have been formulated by persons not entitled to do so, and bring trouble for those subscribing to them.

Next determine if the premium to be paid is in good proportion to the benefits derived. Many times a better bargain can be made with some other firm or by the employee purchasing his protection as an individual. Another point to consider is if the amount of benefit is large enough to allow the individual to maintain something like his former standing of living. A very small benefit will not allow him to meet payments on goods bought on installments, or to continue the education of his children, etc. If the benefit is very small, he may be better off using the amount paid for premiums to pay off these debts in order not to lose them in case he is disabled. If he is going to go $20 a week in debt at a time of disability, he may as well go $25, and still not lose his equity in things he has purchased. Finally what becomes of money paid for protection in times which make it impossible to keep the plan paid for? For example, a man may have kept up his end for several years, and then because the plant is closed, or because of floods or other catastrophe, or because the firm moves the plant away, or because he is discharged or laid off, or because of war he can not pay any more. Does he lose all his money? Does he have a grace period? All these financial points should be considered well.

The fourth, and most important feature to consider is what results will such a plan have upon the practice of medicine? Sternly oppose any plan which:

a—In any manner fails to allow full freedom of choice of physicians.

b—To even a slight degree prevents the attending doctor from using his best judgment.

c—Forces the doctor to disclose information obtained in the confidence of his official position.

d—Requires membership by either patient or doctor in clubs, religious organizations, fraternities, etc.

e—Limits the doctor in his selection of consultants either as to number or type.

Where such plans are already in force at the time the company doctor makes his affiliation, he should promptly investigate the plan, and do all he can to better it or to discourage it if he feels it is not good for the medical world. Whatsoever is ill for the practice of medicine is eventually a poor investment for the employer in spite of all the pressure the sponsors may bring to show this isn't true.

PATIENTS COMMON TO PRIVATE AND INDUSTRIAL PRACTICE

Not rarely a patient seeks the company doctor as a private physician. This is certainly a logical step, and most company doctors feel this is a part of their compensation for the time they give to industrial life. However, this condition raises many perplexing problems. In some cases the patient has a disease which if made known to the employer would lead to dismissal of the employee. This would work an economic hardship upon him, yet his presence may be a danger to his fellow workers. At the same time, had he sought another doctor, he may have been free from the risk of dismissal. The physician must remember he has no ethical or legal right to disclose this information without the specific permission of the sufferer. Often this picture is complicated by the fact that some fellow-worker may have exposed the thing to the employer, and the dismissal is laid to the doctor's breach of confidence. How to meet this problem is a difficult thing to say. Each case is an individual problem. In some cases where this condition is likely to arise, the company doctor may be wise to tell the patient the facts, and refer him to some outside physician. In other cases the patient may be induced to take a sick-leave till he is cured. At other times he may be induced to do so through cooperation with the health department. Other times he may have to be convinced it would be very injurious to work while ailing with this disease. Many times no good solution seems to present itself.

The industrial doctor is in a good position to influence employees to seek him for private care. This seems easy to do, and could be very lucrative. However, in the long run such tactics will breed discontent from his patients, ill-will amongst his colleagues, and disfavor from fair-minded employers. If patients seek him freely, they will establish most welcome contacts with the industrial doctor as a private physician, but if they are coerced even slightly, much that would be an asset to a practice proves to be a liability, and eventually the good reputation of the physician suffers.

It will prove well worth the trouble to cross-check records from private practice against those of the company files. This is especially true in Industrial Commission and insurance company cases. Such cross-checking will also help forestall mal-practice suits. Often information so derived aids in making a better diagnosis, or instituting therapy, or avoiding duplication of work.

Not rarely it is found advisable for the company doctor to work with the family physician. In such cases as are referred to the latter by him, the company doctor should be paid by the patient since he is actually acting as a private consultant. The reverse is true when the company doctor seeks outside aid in his practice as company doctor. Here the company should pay the consultant since he is acting on company business.

PREVENTIVE MEDICINE, HEALTH CAMPS, MEDICAL SOCIAL-SERVICE

Employers today are taking a decided interest in the outside lives of their employees. This is true as related to health and social problems to a large extent, and while we will not go deeply into the subject, we feel certain points are worth making. The industrial plant is a fine place to do preventive and socio-medical work. It offers convenience of assembly, certain helps along the organization lines, and frequently financial backing. The returns in good health and freedom from loss of working time certainly repay the efforts put into such projects. Here again let us point out that it should not be the function of the industrial doctor to see how much of this he can do himself, so much as it should be his aim to create interest in these questions so the em-employee will seek private care. He may also help in organizing groups, suggesting projects and leading discussion about them.

Certain fields of preventive medicine have been invaded by all sorts of persons not qualified to render this service. It is too easy today for persons to obtain vaccinations, Schick tests, Wassermann tests, typhoid inoculations and similar services either free of charge or for a trifling sum from city nurses, insurance company nurses, health depots, school nurses, social-service agencies, etc. In many instances these services are rendered by laymen. Frequently there is no investigation to see if the patient is allergic, to see if this work is needed, to tell if results are good (leaving behind a false sense of security), and also to see if the patient could have paid some private doctor for this service. It would be well for organized dental and medical societies to actively oppose these non-medical groups rendering medical service. The industrial doctor should not attempt to increase such practices by allow-

ing his factory attendant to do this, nor should he himself foster this unless it is to be done by private doctors or that the employees are to pay for his services themselves.

Sex hygiene, adolescent hygiene, and similar subjects may be taught to properly selected groups. The company organizations may be used as a nucleus. This is a field which holds rich promise, and is worthy of all the efforts it may require.

Injuries occurring in athletics, recreational activities, etc., should be handled like industrial accidents, but some provision should be arranged for beforehand to pay expenses involved since these are not usually provided for by public funds.

Most company health camps seem to be well-manned, to have good first-aid stations. They all seem to have met satisfactory facilities for sanitation, etc. Regular inspections should be made to see that all is well. When injuries do occur here or illness befall any employee, first-aid should be given, and the patient sent to his family doctor. If this is not practical, obtain the patient's permission to treat him before doing so, and be especially careful when dealing with minors.

SUMMARY

The physician's duties and relationships in industry were discussed under the following headings:

1—Pre-employment examinations.

2—Ambulatory illness.

3—Industrial accidents.

4—Sanitation, hygiene, etc.

5—Group insurance, hospital service plans, and other benefit services.

6—Patients common to private and industrial practice.

7—Preventive medicine, health camps, medical social-service, etc.

No great attempt was made to discuss the technical details of diagnosis or therapy since this was not our purpose. We wished to point out the major problems of the industrial doctor, and to show what we consider the best methods of disposing of the problems. The basic principle involved was to urge these doctors not to allow their good medical judgment to be subjugated by economic, political, social, or legal pressure. We also urged the industrial physician not to attempt to extend his fields of activity to such a point that they hamper or compete with private practice since such extension will only lead to lower standards of medicine and economically poorer private practice.

NEWARK TRUST BUILDING.

Vision and Its Relation to Automobile Accidents

Statistics show us that between 50 and 60 per cent of automobile accidents occur after sunlight has ceased to give adequate illumination of the streets and highways, and also that of these accidents approximately 75 per cent are stated to have been caused by glare of oncoming headlights.

These statistics force us to consider carefully the health of drivers' eyes with relation to night blindness (exclusive of the night blindness due to the congenital disease, retinitis pigmentosa), which is often a manifestation of vitamin A deficiency. Also these statistics demand consideration of automobile headlights, regulations for dimming or tilting headlights, highway illumination and the possible use of polarizing lenses to eliminate glare.

A vitamin A deficiency induces a hypersensitivity of an individual's eyes to glare since the visual purple in the retina, on which vision is dependent, is rapidly destroyed by light, and in the regeneratiton of visual purple, an adequate supply of vitamin A is necessary for rapid and complete restoration.

Tests have revealed that about 15 per cent of men and women show a night blindness defect of varying degrees, some being unable to make any visual adjustment to diminished illumination Rapid cure of night blindness defects can be effected, in many cases, by supplying adequate amounts of vitamin A in the diet by means of butter, cream, cod liver oil and other fish oils.

It is quite evident from this data that proper examination for licensure of drivers should include medical examination of the applicants relative to dark adaptation in accord with suggestions made by the Committee on Visual Standards of the American Medical Association.

Engineers are constantly attempting to produce headlights for automobiles which give a maximum of illumination with a minimum of glare. They have introduced tilt ray lamps which surpass the antiquated dimming which merely reduced all illumination by means of electrical resistance coils.

One phase of lighting which appears seldom to be considered properly is proper contrast between traffic signal light illumination and the adjacent background. At present many of our most important and dangerous intersections are so surrounded by a myriad of red, green, blue and yellow Neon advertising signs which so destroys the contrast between the lights on traffic signals and the adjacent surroundings as to render the signal lights almost indistinguishable.—Philip S. Luedde, M.D., St. Louis; Jour. Mo. State Med. Assn., Vol. 36, No. 1, January, 1939.

Use of Corpus Luteum In Gynecology

DANIEL T. FEIMAN, M.D.

THIS is a preliminary report of 28 cases of menorrhagia, seven cases of metrorrhagia, three cases of threatened abortion, four cases of dysmenorrhea treated with proluton.*

GROUP 1.

In this group of 28 cases, the only complaint was menorrhagia. Four of these patients have small fibroids, the remaining 24 had no gross pelvic pathology. In the group of 24 cases, the average length of bleeding was 6⅞ days, requiring an average of 19½ pads for each period. Ages of these patients ran from 12 to 45 years. The menstrual cycle varied from 21 to 35 days, only two patients having a normal 28 day cycle. These patients were all treated with proluton (Schering Corporation). The duration of treatment was from one to five months.

Proluton was administered by the following technique: A complete menstrual history was taken especially from the onset of menorrhagia. In this group, nine patients had a history of menorrhagia from the onset of menstruation. Ten patients had menorrhagia following delivery. Five had menorrhagia within a recent period of six to twelve months. The length of the menstrual cycle was determined by the average cycle of the past six months. Proluton was administered in one mg. dose two days after the midmenstrual period because normally progestin is liberated at this period. On alternating days proluton was given in one mg. dose up to two days before the estimated day of menstruation. Eight to twelve mg. were given to each patient during one month. Each patient was instructed to keep a detailed report at the end of each course of proluton therapy as to the onset, length of flow, and number of pads used for the entire period. In this group, after the first month of treatment, the average length of flow was 5⅞ days requiring the use of 14¼ pads.

By the end of the second month of treatment, the menstrual cycle varied from 26 to 28 days, menstruation lasting 4½ days requiring the use of 10 to 12 pads.

*Proluton, not as yet Council accepted, a pure corpus luteum preparation of Schering Corporation was used in this entire series of cases. No anterior pituitary like hormones were used because it was felt that uterine bleeding is due to a lack of progestin. Anterior pituitary like hormones has both Prolan A. and Prolan B. Prolan A., the estrogenic stimulant; Prolan B., the progestin stimulant. In menorrhagia if Prolan A. is given in the presence of an excess of estrogenic hormones, the bleeding will be increased. It is more sound to give concentrated pure progestin in the presence of a deficiency of progestin and an excess of estrogenic hormone. Several of my reported cases had previously been on preparations of anterior pituitary like hormones without relief of symptoms. Proluton was capable of controling this entire group of cases with few exceptions.

The Author

● Dr. Feiman, Canton, is a graduate of University of Illinois College of Medicine, 1932.

Six of the above 24 patients required three months of treatment. Four of these patients received treatment for five months. Only one patient did not respond to proluton therapy. This patient had a previous Gilliam suspension with cervical amputation. The vaginal bleeding was thick and mucoid as one would find in a case of endometriosis. This patient refused further surgery and investigation. Twenty-four mg. proluton were used during a six weeks treatment with no improvement. Another group of four patients aged 12, 13, 15, and 17 years were treated. All of these patients had menorrhagia since the onset of menstruation. The twelve-year old patient had three periods, the last one continuing 23 days. Ten mg. proluton were used to stop the menstruation and control further menorrhagia. In the past six months she has had no further menorrhagia.

The thirteen-year old child had menorrhagia every 14 to 18 days lasting seven days. Twenty mg. proluton were needed to control the menorrhagia.

In this group of 24 cases, only three had a recurrence of menorrhagia after a six months absence of treatment. The menorrhagia was shortly controlled with further treatment of proluton. In four patients complaining of menorrhagia, fibroids were found ranging in size from a large grape to a blue plum. Three of these patients responded to proluton therapy during a three month duration of treatment. No further treatment has been used for the past six months. Menorrhagia has not recurred in two of these patients for the past four months. The third patient is controlled by four mg. monthly. One patient received no relief from menorrhagia by proluton treatment. Surgery was then found necessary for this patient.

GROUP 2.

Seven cases of metrorrhagia were treated, all were 38 to 46 years. Symptoms of menopause were also present in addition to the metrorrhagia. Four of these patients were curetted to rule out a possibility of carcinoma. All seven patients responded to treatment with 12 to 16 mg. proluton given monthly. The metrorrhagia was controlled

by three months therapy. The same method of administering proluton as in the group of menorrhagia was used.

No estrogenic hormones were given in these cases having metrorrhagia in the presence of menopause. After the metrorrhagia was controlled, small amounts of estrogenic hormones were given every ten days to help those patients having more severe menopausal symptoms.

GROUP 3.

Only four dysmenorrheic patients were treated. These patients were selected because of their history of menstrual pains requiring bed rest and opiates for a period of two to three days. Only two of these patients were completely relieved of dysmenorrhea following administration of 12 mg. each month for a period of three months, and one patient was partly relieved while the fourth received no benefits after five months of proluton therapy.

Theoretically proluton will relieve uterine contractions and as a result no dysmenorrhea will be present. One must consider the nervous elements involved in cases of dysmenorrhea. The patient who had no relief from proluton therapy was treated as a neurotic individual. Small doses of phenobarbital were given and the patient further treated by suggestion and illustrations. The dysmenorrhea gradually diminished and at present this patient is able to work during the entire menstrual period.

GROUP 4.

Three cases of threatened abortion were treated with proluton. Two patients responded to proluton after having signs and symptoms of a threatened abortion during the fourth and fifth months of pregnancy.

As soon as symptoms of bleeding were present, 2 mg. proluton were given daily until bleeding was completely controlled. One patient bled for seven days; the second nine days before symptoms were under control. One patient had spotting throughout the entire pregnancy. At delivery a placental tear one inch in length was found. Two mg, proluton were given each week for the duration of the pregnancy.

The third patient had severe bleeding during the second month of pregnancy. Two mg. proluton were given daily for 14 days. Thirty days later severe bleeding reoccurred and continued for 10 days. Twenty mg. proluton were given before the symptoms subsided. During the fourth month of pregnancy bleeding was present for the third time. Proluton was unable to control this hemorrhage. The patient was sent to the hospital for curettage. At the time of surgery, the placenta was found in the uterine wall directly over the internal os. A diagnosis of central placenta praevia was made. In the presence of this pathology no conservative treatment could have controlled these hemorrhages.

I often have wondered how many cases of abortions and miscarriages are due to early separation of the placenta. I feel that the proluton was able to carry this particular patient into the fourth month of pregnancy.

Proluton has a definite place in the conservative practice of obstetrics and gynecology. I feel that conservative measures should first be attempted before surgery. In the treatment of menorrhagia, dysmenorrhea, metrorrhagia, and threatened abortion progestin is indicated. The dosage and technique should vary with symptoms presented by the patient and with the judgment of the attending physician.

In addition to the 28 cases of menorrhagia reported in this paper, I have three more to add to this group. These women had menstrual periods every 21 days for a week's duration. All three patients were treated with 10 mg. proluton monthly. After two months of treatment, these patients report two 26 day and one 28 day periods. Menstrual flow is now four days in length requiring the use of eleven pads.

I wish to thank Dr. Helen Brogden for cooperation in reporting her case treated with proluton.

Nasal Surgery and Allergy

If gone into thoroughly enough, the family history will be found positive for some allergic manifestation in well over 50 per cent of the cases. Hansel gives 60 to 70 per cent. The past and present history of the patient usually reveals some of the other manifestations of allergy, such as headaches, asthma, hay fever, angioneurotic edema, gastro-intestinal symptoms, or some skin manifestation. Upon examination of the nose and paranasal sinuses, the most frequent symptoms obtained are sneezing, itching, discharge, nasal obstruction, and occasional headaches. The predominant changes in the mucosa are pallor, edema, and polyps. The secretions usually show eosinophilia, provided repeated studies are made. Skiagrams, made either with or without radiopaque oils, may be found positive for edema, polyps, or retained secretions. The characteristic histopathology is that of edema, eosinophilia and infiltration. Blood eosinophilia is usually present. If the whole picture is complicated by acute or chronic sinus infection or some non-specific factor, the entire examination, except the history, will be misleading, and repeated examinations and observations will be necessary before a definite allergic background may be diagnosed.—J. D. Roberts, M.D., Longview, Texas; Tri-State Med. Jour., Vol. 11, No. 4, January, 1939.

A physician is an angel when employed but a devil when one must pay him.—German Proverb.

Carcinoma of the Cervix Uteri

G. J. SEARLE, M.D.

CARCINOMA of the cervix of the uterus is one of the most frequent types of malignancies the physician has to deal with. As Hoffman states, nine-tenths of some 14,659 women who died of cancer of the genital organs in 1923 had carcinoma of the cervix, and one-half of these cases occur between the ages of 35 and 50.

The Author

• Dr. Searle, Mansfield, Ohio, is a graduate of the Ohio State University, College of Medicine, 1922. Post-graduate courses at the Tumor Clinic Michael-Reese Hospital and the Chicago Tumor Institute, Chicago, Ill. Member of staff Mansfield General Hospital. Mansfield, Ohio.

CAUSES

The primary cause is not known. However, many factors enter into the causation of cancer. There is no doubt that heredity has a great deal to do with the formation of cancer with other factors being present. Antoinne Lacassagne, assistant director of the Pasteur Laboratory, Institute of Radium, Paris, has presented evidence that cancer can be produced by the prolonged treatment of oestrone. Lacassagne cites the reaction of different strains of mice to the same dose of oestrone. Although all the mice obtained the same dose of oestrone only those certain strains died of cancer in a certain period.

Hence it seems that some heredity factor, or some other causation must be present with the presence of oestrone to produce cancer. Lacassagne notes that when oestrone is regularly injected into mice which are susceptible to cancer there results a marked hypertrophy of the uterine mucosa developing into an endometrial hyperplasia so that the epithelium develops glandular invaginations which may even penetrate into the uterine muscle. Then these glandular lumens become filled with secretory products. Finally the uterine epithelium undergoes a metaplasia often leading to a pyometria. While in those strains of mice slightly susceptible to cancer adeno-cystic hyperplasia occurs. This is followed by a fibrosis process which continues until the uterine canal becomes deformed and the uterus seems fibromatous. In those strains of mice which are susceptible to cancer the physiological production of oestrone is sufficient to lead to a proliferation in the breast permiting the development of cancer. Lacassagne has noticed a similar phenomenon taking place in the uterus. Zondek has shown that a-folliculin is rapidly destroyed while folliculin benzoate is not destroyed. Possibly certain organisms have greater excretory powers of elimination of oestrone than others and hence are less susceptible to cancer?

Human colostrum contains a large amount of oestrone, and oestrone has been obtained from cystic cancerous breasts. It is possible that oestrone undergoes a transformation into one of the carcinogenic agents discovered by Cook and Kennway. These English chemists have isolated from coal-tar certain polyvalent carcinogenic hydrocarbons, and have synthesized others with greater carcinogenic properties, which when applied directly to the skin produce epithelioma; or if injected subcutaneously produce sarcoma. All these hydrocarbons contain the phenanthrene ring, which is found in sex hormones, bile salts and cholesterol. Kennaway and Cook while working with cholalic acid have isolated methylcholanthrene a highly carcinogenic substance.

There is nothing to prevent one from saying that oestrone has a direct carcinogenic property under proper conditions. As all the latest theories in cancerology both clinical and experimental state the necessity of prolonged action upon the cell, which passes through the stages of a proliferating, desquamating epithelium, then a papillary growth ending in carcinoma—a condition that can not be reversed. It has been established that oestrone possesses one hormonal action, namely. to produce cellular proliferation in certain tissues as the epithelium of the uterus, vagina, breast, and nose. Clinically, oestrogenic substances are used in the treatment of painful breasts, senile and gonorrheal vaginitis, atrophic rhinitis, menopause also the so-called chronic cystic mastitis. And just what is meant by chronic cystic mastitis. There is a great deal of discussion as to what is chronic cystic mastitis. Authorities disagree on the so-called chronic cystic mastitis.

Or is carcinoma due to a virus? As carcinomas have been ground up with sand in a mortar and pestle and filtered through a porcelain filter, then the filtrate injected into another vertebrate with resulting carcinoma.

Possibly the cause of carcinoma is due to a combination of factors being present in a fertile field for carcinoma formation.

With the role played by oestrogenic substances in the causation of carcinoma certainly it should make the clinician think what might happen with the prolonged or intense usage of oestrogenic substances in a person who has a cancer family

history, or a person who has a lump in her breast.

Cervical erosions, infections and trauma are the important contributing causes according to Schmitz. Graves concludes that eversions and erosions of the mucocutaneous border of the cervical lips, stagnant and infected leucorrheal discharge, malposition of the uterus causing friction and incomplete drainage of the genital canal are the prime factors in cancer of the cervix.

PATHOLOGY

Carcinoma of the cervix may show early leukoplakic areas on a cervical erosion, ulceration of the cervix, a hyperaemic cervical erosion, a papillary growth, or a hard nodule deep in the cervix and not seen on the surface. With later advancement of the disease the cervix is indurated and edematous, with or without an excavated ulcer, or a papillary growth may cover the entire canal. The deeply situated nodule is found on palpation of the cervix, while the ulcerated, papillary and edematous swelling are easily seen. The ulcerated and papillary types tend to bleed easily when touched. As a rule the case is not seen until the cervix is fairly well destroyed by a friable, bleeding, ulcerated, stinking mass.

The growth may grow forward into the bladder or backward into the rectum and laterally into the parametrium, or it may grow into the lumen of the vagina with or without secondary growth implanted into the vaginal wall. If the bladder wall is invaded fistula usually results and the same occurs with invasion of the rectum which causes a recto-vaginal fistula. The carcinomatous recto-vaginal fistula produces a very foul and irritating vaginal discharge.

If the tumor invades the broad ligaments the ureter rarely escapes damage as it lies about one half inch lateral to the cervix. The ureter may be partially or totally compressed or actually invaded by the growth with resulting ureteral dilation and secondary hydronephrosis which causes the most of the deaths.

This ureteral involvement is of great importance to the one who treats cervical carcinoma as ureteral obstruction might be due to poorly placed radium or to the carelessness of the attending nurse who does not catheterize the patient at proper intervals or if the patient strains in an attempt at urination and dislodges the radium with a resulting burn of the ureter causing an ureteral obstruction. It is well to do an intravenous uretrogram before treatment and thus have proof of a pre-existing ureteral obstruction. This may save much anxiety if the case should fall into the hands of a "friendly competitor".

Historical Classification.—According to Cutler, —Squamous cell; Plexiform; Anaplastic.

CLINICAL CLASSIFICATION

The League of Nations has suggested the following:

1. Disease limited to the cervix. Uterus is moveable.

2. Disease spread into the fornices, with or without infiltration of broad ligaments. Uterus partially fixed.

3. (a) Nodular infiltration of parametria extending to wall of pelvis with limited mobility of uterus or fixed uterus.

(b) Superficial infiltration of large part of vagina with mobile uterus.

(c) Isolated metastases in pelvic glands or lower part of vagina.

4. (a) Massive infiltration of both parametria extending to walls of the pelvis.

(b) Involvement of the bladder and rectum.

(c) Infiltration of vagina with fixation of the primary growth.

(d) Remote metastases.

SYMPTOMS

Carcinoma is often insidious in its onset and the patient often times is unaware of the disease until it has passed into the advanced stages. Hemorrhage of the intermenstrual spotting type or irregular vaginal bleeding are the usual first symptoms noted, or else the patient states that she noticed some blood in the toilet after having urinated. If this blood is mixed with mucous one can be reasonably sure it comes from the vagina and not the bladder. A foul profuse watery leucorrhea is no doubt the next most prominent symptom, "Pain in the hip of a dull aching character, usually on one side at first is the most common early symptom. And these patients who have cleared up under irradiation are frequently treated for rheumatism". This is the experience of Dr. Phole.

As the disease progresses with the gradual blocking of the ureters chills, fever, nausea, vomiting, headache, malaise and the rest of the uremic symptoms take place, along with pressure symptoms due to the growing mass pressing upon the pelvic organs. And death may be due to uremia, infection, malignant toxemia but rarely hemorrhage.

EXAMINATION

Bimanual examination to determine the size of the uterus, its moveability, to determine if a salpingitis is present or not as this complication means caution in the treatment. Then with a bivalve speculum the cervix is inspected to determine its appearance; a friable, red, bleeding, ulcerated everted mass is noticed; the cervix may be patent or obliterated. On palpation of the cervix a nodule may be present deeply situated and not seen on the surface. If the tissue over a carcinoma is painted with Lugol's solution it will be noticed that this area remains white while

normal tissue stains a mahogany brown. This reaction is due to normal tissue containing glycogen hence the brown stain and carcinomatous tissue not containing glycogen remains white. This test is called Schiller's test. Graves has found this test valuable in picking up cases which might have been overlooked otherwise.

There is much diversity of opinion as to whether a biopsy can or can not be done safely. If the cervix is ulcerated it is easy to snip off a piece of the edge of tissue without fear of dissemination of cancer cells. In case of a nodule in the cervix under novocain anesthesia and a high frequency knife one can do a biopsy with the danger of dissemination of cells cut to a minimum. The novocain should be injected about one-half centimeter from the nodule so as not to carry any cells into the normal tissue with the needle.

During this examination one should attempt to determine the size of the cervical canal, its depth and direction. This is important if radium is to be inserted in a tandem. Under no condition should force be used in an attempt to dilate the canal as this is an excellent way to disseminate the cancer cells.

Cystoscopy and intravenous urography should be done to determine the condition of the bladder, the ureters and the kidneys.

TREATMENT

Cancer of the cervix belongs to the radiotherapist as is shown by the clinical grading set up by the League of Nations.

Radiation. Type one malignancy 70 per cent five year cures; two malignancy 41 per cent five year cures; three malignancy 27 per cent five year cures; four malignancy 2 per cent five year cures.

Primary mortality for radiation 2 per cent.

Surgery. Type one malignancy 40 per cent five year cures; two malignancy 22 per cent five year cures.

Primary mortality with surgery 42 per cent.

The Curie Institute gets 50 per cent five year cures of cancer of the cervix-uteri.

If the cancer is limited to the cervix use radium first. If primary to and limited to the canal use radium and X-rays, these two conditions will give 50 per cent five year cures.

If there is parametrial involvement use X-rays then radium.

If there is a perforation of the bladder or rectum do not use radium as it will only provoke suffering; use the X-ray only.

Six to eight fields are used and they must not over-lap. Leave one-half cm. between fields and direct the rays on the uterus. Two anterior, two posterior and two ischio-sciatic fields are used. These ischio-sciatic fields are important. One may also use one midline field.

Daily doses are used starting with 125 R twice a day and increasing the dose with diminishing fields. Usually the field is 300 cm. sq. and diminished to 100 cm. sq. The fields are treated in rotation and after one week the dose totals 1,500 R. The patient is examined to see if there is any modification of the cells. The treatment is continued until each field has received 2,000 R in 30 or 40 days, using six or eight fields. Thus one can give 15,000 R in 30 days at 500 R daily. 18,000 R in 40 days at 350 R daily. Using two fields a day.

In case of a heavy woman 350 R daily must be given as this will give about 150 R to the cancer cells.

If the cells are resistant one may give to two fields.—200 R for five days to a field equals 1,000 R. 300 R for five days to a field equals 1,500 R. 400 R for five days to a field equals 2,000 R.

In this latter method of treatment the fields must not overlap and must not be over 300 sq. cm. The fields must be diminished in size to 100 sq. cm. during the treatment. Intensity is 5 R per min. for a 300 sq. cm. field. 10 R per min. for a 100 sq. cm. field. 220 KVP-8 Ma-60 to 80 cm. distance filter 2 mm. cu plus 1 mm. Al. or a Super-Thoreaus filter.

If the treatment is right the patient will feel good the first day and continue to gain in weight daily, however on the thirteenth day she will not feel so good and may be nauseated. The patient will not feel good on every thirteenth day, during the treatment, this is due to the reaction and occurs at regular intervals.

At no time during the course of treatment should the patient vomit. If she does, the treatment is too strong or too intense. On the thirteenth day she may have a diarrhea so one must be careful on this date. If the diarrhea persists that treatment is either too strong or too intense. If radium is to be used one does not have to diminish the dose of the X-ray.

By using the X-rays first we clear up any infection and open the cervical canal so a radium tandem can be used, without fear of scattering the cells. Forty mgms. of radium in a tandem is then inserted into the uterus, under aseptic technique. Then a colpostat with 20 mgms. of radium is placed against the cervix and the uterus is packed with gauze. The gauze is removed daily and new inserted. If the temperature does not go over 100 degrees the tandem is not removed, until a total dose of 3,500 mgm. hours is given. This treatment is good and gives good results.

Dr. E. A. Merritt has devised an intra-vaginal method for treatment of carcinoma of the cervix. He uses an intravaginal cone, placed against the cervix and uses 220 KVP 0.5 mm. Cu plus 1 mm. A1 filter 50 cm. distance 300 to 500 R daily un il 4,500 to 5,000 R are given. Then a radium tan-

dem is immediately used 2,400 to 3,600 mgm. hrs. is given; no colpostat is used. Coutard Technique is then used for external radiation.

ACCIDENTS

Vomiting is due to too high intensity or too strong a dose. If the liver enlarges the intensity must be diminished. Too high an intensity as 25 R per minute may injure the ureter. Dr. Coutard has not had any accidents, and there are no cases on record at the Curie Institute of injuries to the ureter.

Pathological fracture of the pelvis may occur five to seven years after treatment. This due to too high intensity; but more often to the improper use of radium.

CONCLUSIONS

Oestrogenic substances should not be used indiscriminately.

Radiation therapy gives the best results in carcinoma of the cervix.

Radiation has only 2 per cent primary mortality while surgery gives 42 per cent primary mortality.

Schiller Test is of value in detecting unseen carcinoma of the cervix.

Two techniques have been given for treatment of carcinoma of the cervix.

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228 PARK AVENUE, WEST.

A man, aged thirty-five, had had urinary difficulty for over a year, and for six months had been obliged to use a catheter. There was always intense pain before and during an attempt to void. His previous examinations by several doctors had included urethroscopic and cystoscopic observation, and the case puzzled everyone. Finally, additional consideration included a Wassermann. This was positive, and he was placed immediately on intensive treatment. He began to feel better the same day; in four days he urinated normally, and has had no further difficulty. —Wirt B. Dakin, Los Angeles.

Specific Serum Therapy in Pneumonia

The total dosage of anti-pneumococcus serum and the matter of size of individual amounts are points which are not yet fully established. Our own policy has been to give 20,000 to 50,000 units and to follow this with 100,000 units in three hours, and repeat each six hours until a definite response to toxicity, pulse, temperature and respiration is obtained. However, Loughlin et al. have found it possible to give the entire calculated dose at once, even as much as 500,000 units. Their technic is worthy of further consideration for several reasons. The individual amount of serum required varies greatly (50,000 to 900,000 units) but the average requirement seems to be about 300,000 units. A distinct increase over the average dosage is recommended to the following patients: persons with septicemia, those over 50 years of age, multiple lobe involvement, during pregnancy, in diabetes and to persons with other infections. In all these conditions, the serum dosage should be doubled or trebled. When early and adequate amounts of specific serum are administered, the toxemia may be promptly decreased, with a decrease in the pulse, temperature and respiratory rate. A sterilization of the blood stream and recovery may thus occur with a significant reduction of the expected mortality. It is evident that specific type serum therapy of pneumonia is established, and it should be pressed until some better method is developed. To this end, the health departments of various states, including Indiana, have taken great steps in the establishment of pneumonia typing stations, and accepted specific sera are held available to the physician who may have need of it. The interest on the part of the United States Public Health Service should further the whole program. To date the concentrated horse serum has not been replaced by the new rabbit anti-pneumococcus serum in the work of the Federal Government. More work is needed before the question of whether the horse or rabbit serum is more desirable is decided, and whether or not the single large calculated dose may be given to each case so that the disease may be promptly terminated.—M. Herbert Barker, M.D., Chicago; Jour. Ind. State Med Assn., Vol. 32, No. 1, January, 1939.

The Iritis of Early Syphilis

Cannot be Clinically Distinguished from Iritis due to four other causes, as follows:

Focal infection, gonorrhea, tuberculosis, rheumatic fever.

Examine skin and mucous membranes. Do a blood serologic test.—Supplement No. 5, Venereal Disease Inf., U.S.P.H.S.

Malignant Sebaceous Cysts–Case Report

SAMUEL SELTZ, B.S., M.D., Cincinnati, Ohio

THE malignant degeneration of a sebaceous cyst is in itself unusual. When that degeneration occurs in one 16 years old, the occurrence would appear worthy of a clinical report.

Caylor, Bishop, and Stone and Abbey have reported a total of over 700 cases of sebaceous cysts. Caylor found that of 236 cases 3.44 per cent showed malignant change; Bishop in 119 cases found that 9.2 per cent showed malignant change and Stone and Abbey found that in 363 cases, 2.2 per cent showed malignant change.

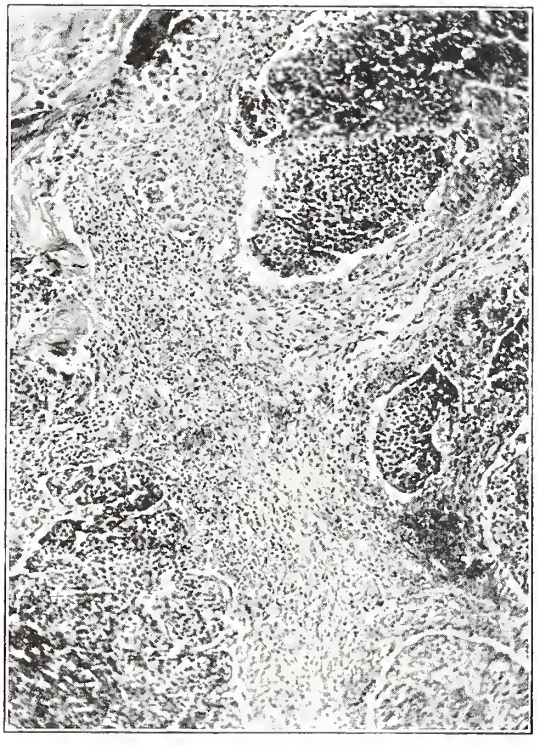
In the series of cases mentioned above, in which malignant growth occurred, there was a history of long duration or recurrence. The recurrence of a tumor in or near a scar resulting from the removal of a sebaceous cyst should be regarded with suspicion and the growth removed by wide excision with no attempt at shelling out the cyst. In all such cases microscopic study should be made of serial sections and if malignant change is found, a follow up with adequate X-ray is indicated.

The most common location of cysts are on the face and scalp, practically all of them occurring above the shoulders. Bishop states that metastases from malignant sebaceous cysts are very rare. Caylor, Seff and Berkowitz and Gregerson each reported one case of generalized metastases from a malignant sebaceous cyst.

I have removed many cysts, all of them on the face and scalp but have encountered no malignant change until this case was seen. Only a small number of the cases were sectioned. The most unusual location I encountered was one in the lobule of the external ear. This recurred, but following a second removal no further recurrence was noted.

CASE REPORT

A. Z., aged 16, came in to see me in June, 1938, with a swelling over the left mastoid bone. He stated that it had been there for the past two and one-half years and he thought it started after he was struck there during a football game. The present swelling did not pain him but because it interfered with proper wearing of a hat, he wanted it removed. Examination revealed a tumor about the size of a walnut over the left mastoid, soft, freely movable, and somewhat fluctuant and not painful. A diagnosis of the sebaceous cyst was made and it was removed at the Jewish Hospital at the same time that a tonsillectomy was done under general anesthesia. It shelled out easily and contained the usual epithelial debris one sees in sebaceous cysts but the capsule was unusually thick. Dr. Wassermann examined sections of the tumor and reported it was an epidermoid carcinoma of moderate malignancy and of moderate radio-sensitivity. The patient was given twelve X-ray exposures, filtered radiation with a total of 3,300 R units, by Dr. Nathan Flax. He has had no reaction other than slight redness about the incision, which is perfectly healed.



Photomicrograph of Section of Sebaceous Cyst Showing Carcinomatous Degeneration.

Read before the Cincinnati Oto-Laryngologic Society, October, 1938.

The Author

● Dr. Seltz, Cincinnati, is a graduate of the University of Cincinnati College of Medicine, 1923; member American Academy of Oto-Laryngology; attending oto-laryngologist at Cincinnati General, Jewish, Children's and Longview Hospitals; instructor in oto-laryngology at University of Cincinnati College of Medicine.

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Precautions in the Administration of Horse Sera

JONATHAN FORMAN, M.D.

WE physicians have been taught that the remedy selected should never produce results worse than the disease for which it is given; the medicine should never do the patient harm. It is therefore important that thereapeutic sera be given to meet definite indications and only after proper testing with alert and careful observations.

A patient is admitted to the average emergency ward or to a doctor's office for the treatment of a wound. Quite routinely, even before the wound is dressed, the patient is given a prophylactic dose of tetanus antitoxin. The chances are that the antitoxin is needed and its administration is sound and proper. But, how often is the case investigated or questioned to determine whether or not the patient is liable to be serum sensitive? How often is the patient asked if he suffers from asthma, especially when near horses? Has he ever had toxin-antitoxin or any other serum? Was the dose large and for what germ was it given? How often is the patient tested to see if he is naturally sensitive to horses or if he is serum sensitive? And if an immediate reaction should occur, how well prepared is the administrator to handle properly this serious situation?

Serum sensitiveness is comparatively infrequent in persons who have not received serum previously. A relatively high percentage of persons who are given a second injection of serum, however, develop serum sickness. The exact percentage seems to be influenced by the type of bacteria against which the serum has been prepared and the amount of the serum which has been given. Some authorities also feel that serum of one horse is more likely to cause serum sickness than that of another horse. It is well known that fresh serum produces more reactions than serum which has been preserved for some time.

Serum Allergy is strictly an acquired state but it may exist to such a degree that the use of the offending serum may produce serious and even fatal reactions. **Atopic sensitization to horse serum** on the other hand, depends upon a constitutional state and the injection of even a very small amount of serum is most likely to result promptly in the death of the patient. Fortunately, this state of affairs is of rare occurrence but how rare no one really knows.

When the use of serum is indicated, it is of the greatest importance to separate these two types and to determine just which one, if either, the patient possesses. The first step is to find out whether the patient has an allergic constitution or not and then if he possesses such a constitution whether he is sensitized to horse protein. This may be clearer if reference is made to author's chart on the classification of allergy (see *Ohio State Medical Journal, January*, 1933). The criteria by which it may be determined are three in number, viz.:

1. A family history positive for asthma, hayfever, perennial vasomotor rhinitis, infantile eczema, neurodermatitis, clinical reactions to berries or seafood, migraine, et al.

2. A personal history for any of the above atopic manifestations. If the patient has an allergic coryza, has or has had nasal polypi, or has or has had an asthma, it is most important to ascertain whether these have come on after exposure to horses, horse hair, or horse dander. If possible, determine whether attacks were associated with an eosinophilia.

3. **Skin Tests** with horse serum, horse dander, and a control should be routine in every case. These are performed as follows:

Horse Serum. Inject into the skin 0.01 cc. of normal horse serum diluted 1-10 with normal saline or a properly buffered, non-irritating saline solution. In individuals who seem to be affected by horses or about whom nothing can be learned use 1-100 dilution of the serum instead of the 1-10. The reaction can be read in 10 to 20 minutes and recorded as 0, +, ++, +++, ++++.*

Horse Dander. Extreme caution must be exercised in testing with this atopen as it is a common cause of constitutional reaction. It is best to use 0.01 cc. intradermally of a dilution of the extract containing only 0.001 milligram of nitrogen per cubic cemtimeter. If this proves negative at the end of 20 minutes then a solution 10x as strong may be used. These are the average strengths recommended by Bowman and Walzer and commonly employed. These authorities also state that they are not aware of any instance of atopic sensitivity to horse serum which, at the same time, did not show some cutaneous reactivity to horse dander as well. The reverse relationship holds true less frequently.

Read in 20 minutes and record as 0, +, ++, +++, ++++.*

This is one of a series of editorial summaries on the management of certain diseases.

*Negative Test: No increase in size; no zone of red and no itching.
One Plus (+)—Redness with little or no increase in the wheal.
Two plus (+ +)—Certain increase with redness and usually no itching.
Three Plus (+ + +)—Same as four except no pseudopodia.
Four Plus (+ + + +)—Wheal 2.0 cm. or larger, redness and usually itching.

If neither the horse serum nor the horse dander give a positive intradermal test, then the desired horse serum may be given with the assurance that, while there may develop a serum reaction it will be of the delayed type and will never be fatal or even serious.

If the skin test with horse dander is positive and if both the serum skin test and the eye test (see below) with the horse serum are both negative, then so far as is known today, it is proper to administer cautiously the therapeutic serum. It would be safer, of course, to use a serum prepared from some animal other than the horse.

If the dander reaction and the serum reaction are both positive, horse serum should not be given. Such patients may be killed by its use. If therapeutic serum is needed, it should be obtained from some animal other than the horse and then only used after the serum and dander of that animal have been used for testing with negative results.

If only the horse serum gives a positive intradermal test, the degree of the sensitivity should be further determined by the use of the **eye test.** This test is only used in persons who do not react to the dander and who do react to the serum test. This eye test is performed by placing one drop of the serum, or its proper dilution, in the conjunctival sac and waiting for the reaction to occur. The undiluted serum may be used for adults who give only a one plus interdermal reaction to the 1-10 dilution of horse serum. For adults, children and adults with a stronger reaction in the skin test, the serum should be diluted 1-10. Epinephrin (1-1000 dilution) should be at hand as one drop instilled in the sac will bring relief in case of a severe reaction.

If the eye test is negative, immediate reactions are still a possibility especially if the serum is to be given intravenously. The use of horse serum should therefore be avoided if possible and the serum from another animal should be investigated. If such sera are not obtainable, then an attempt to "desensitize" should be undertaken with spaced injections and coincident or combined with epinephrin.

"DESENSITIZATION"

The advice of Tuft should be followed in this procedure. Inject subcutaneously 0.05 cc. of the serum with 0.3 cc. epinephrin on top of the serum so that it will enter the tissues first. If nothing happens at the end of 30 minutes when the constriction of the blood vessels has worn off and the serum has been absorbed, then use 0.10 cc. with the epinephrin. In every other dose the epinephrin is given as every 30 minutes a larger dose of the serum is injected until the total amount is given. i.e., 0.05 cc., 0.10 cc.., 0.20 cc., 0.50 cc., 1.00 cc., 2.00 cc., 4.00 cc., until the total amount is given. It is important to note that the serum should be injected beneath the skin of an extremity so that absorption can be retarded by the use of tourniquet if it should become necessary.

The above applies to the injection of the desired serum beneath the skin or into the muscles. When it seems necessary to inject the serum into the veins, proceed as above until the 1.0 cc. dose has been given. Then one half hour later, inject intravenously and slowly 0.10 cc. of the serum diluted with 0.90 cc. of normal saline. If all goes well repeat at half hour intervals the injections following the schedule of doses; 0.20 cc. diluted to 1.00 cc., 0.50 cc. diluted to 1.00 cc., 1.00 cc., 2 cc., 4 cc., and so on until all of the serum has been given. **If there is the least sign of reaction** (difficulty in breathing, itching, or burning of the skin), **stop the injection at once and inject more epinephrin.** After the symptoms disappear, start again but with a much smaller dose and work up to the above schedule.

It is usually possible to give the total quantity of serum desired in this way without the production of serious serum reaction.

If the skin test and the eye test with the horse serum are both positive, immediate serous serum reaction are extremely likely. If the use of the serum cannot be avoided, then it should come from some other animal than the horse. It is of no use to attempt so-called "desensitization" in this instance and may be even dangerous.

In conclusion, do not deny the aid of an indicated serum to any patient because of a blind fear. Study the patient and apply the tests and thus learn what must be done to make the procedure safe in each case.

You are all familiar with Maeterlinck's story of the wood cutter's children, who were looking for the blue bird of happiness. They searched all over the world and finally found it in their own back yard. For a long time we were troubled in Dayton and searched everywhere for a way to lower our maternal mortality. As individuals we went to clinics and conventions; we worked diligently in our hospitals, but the answer was not there. Only after joining hands and facing our problem together, we discovered our "blue bird" on the door step of understanding and cooperation.—Clarke Sullivan, M.D., Activities of the Obstetrical Society of Dayton, Ohio.

According to **The United States Public Health Reports,** the percentage of human beings in this country infested with **Trichinae** as revealed by autopsies runs as high as 27.6 per cent but the usual proportion is put at about 17 per cent. This would mean that one person in six is infested.

Case Records Presenting Clinical Problems

"Toxemias of Pregnancy."

HARRY L. REINHART, M.D.

In the February number of *The Ohio State Medical Journal* two cases were presented which illustrated many of the signs and symptoms occurring in the "toxemias of pregnancy". The term "toxemias of pregnancy" will be used in the discussion of these two cases to include (1) eclampsia, (2) hyperemesis gravidarum, (3) nephritic toxemia in pregnancy. The clinical course of the first case suggests a nephritic toxemia in pregnancy, in the sense of an acute exacerbation of a previously existing glomerulo-nephritis terminating in uremia. Studies of the kidneys revealed little evidence of a pre-existing glomerulo-nephritis; the basic lesions were of the type noted in eclampsia or acute membraneous glomerulo-nephritis. They were characterized by a diffuse thickening and necrosis of the walls of the capillaries and medium size vessels, most intense in the kidneys, but not confined to the kidneys. Such lesions by reducing or obliterating the lumina of the capillaries impair the circulation of blood through the glomeruli and may induce the clinical symptoms of an acute glomerulo-nephritis; they resemble the kidney lesions of the mixed type of lipoid nephrosis. When they occur during pregnancy they usually are classified as the kidney of pregnancy toxemia, or eclampsia if preceded by the clinical features of eclampsia.

The clinical diagnosis of eclampsia, in contradistinction to nephritic toxemia in pregnancy, is based upon convulsions, hypertension and little or no retention of non-nitrogenous waste products in the blood. The clinical pattern of this case does not conform to such a definition of eclampsia as there were neither convulsions nor hypertension and there was a marked retention of nonprotein nitrogen in the blood. The history of nocturia before pregnancy, lack of clinical improvement after delivery, marked secondary anemia, low plasma proteins, marked retention of nitrogenous waste products and uremia favor a diagnosis of nephritic toxemia. The clinical manifestations of myocardial insufficiency may explain the absence of hypertension as obviously the patient was seen in the terminal stages of her illness.

Convulsions are not necessary for the diagnosis of eclampsia, although in their absence the term pre-eclampsia is used. Pre-eclampsia and eclampsia are apparently the same disease entity. Renal insufficiency is rare in eclampsia, except in the terminal stages, and it usually clears up more rapidly after termination of the pregnancy, than in nephritic toxemia. In both eclampsia and nephritic toxemia renal insufficiency is induced in the same manner, i.e., by obstruction of the blood flow through the glomeruli, although the anatomic lesions are different. In eclampsia the glomerular changes are characterized by uniform thickening of the basement membrane of the capillaries, and narrow lumina which impede the circulation of blood through the capillaries and interfere with glomerular filtration. Such was the appearance of the kidney lesions in this case. A pre-existing glomerulo-nephritis is characterized by glomeruli with evidence of varying degrees of old and recent damage and atrophic tubules. There was no anatomic evidence of a pre-existing glomerulo-nephritis.

Manifestly only an arbitrary classification of this case is possible. The most logical classifications of disease are those based on etiology. The discovery of the etiology of a disease not only provides a rational basis for classification of that specific disease, but also aids in the differentiation and definition of many others. In the absence of an etiological basis for classification, information of value for differential diagnosis may be obtained by a careful study of the clinical evolution of the disease; in cases of this type not only during pregnancy, but before pregnancy, and by careful follow up studies. From studies of this type evidence has been obtained, suggesting that the vascular types of the toxemias of pregnancy (such as this case) are not transitory but in more than 50 per cent of the cases are permanent and merge into chronic vascular disease. Herrick has stated on the basis of extensive follow up work of this type "that the course and end of eclampsia, the nephroses and nephritides of pregnancy, unfold in the familiar forms of hypertensive cardiovascular disease or of true nephritis".

The increased demands made upon the cardiovascular system of the pregnant woman may not be manifest as long as there is adequate reserve function. Careful investigations of the blood pressure by the "cold pressor test" give promise of providing valuable information of the adequacy of the reserve function.

The clinical course of the second case was suggestive of "hyperemesis gravidarum". It was characterized by persistent excessive vomiting,

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This is the thirty-seventh of a series of cases to be published under the heading, "Case Record Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

(beginning early in the second trimester of pregnancy), increasing weakness, dehydration, ketonuria and slight jaundice. The possibility of acute yellow atrophy (pre-eclampsia) was considered because of the slight but definite jaundice. The anatomic diagnosis was: (1) slight diffuse toxic hemorrhagic encephalitis, (2) fatty metamorphosis of the liver, (3) moderate toxic necrosis of blood vessels of liver and kidneys, (4) nodular colloid goitre.

Cases of hyperemesis gravidarum rarely terminate fatally. Death may follow extra-renal uremia from dehydration. There is no definite evidence of a terminal uremia in this case, although a moderate dehydration was noted at autopsy.

Extensive toxic myelitis involving the spinal cord, and characterized clinically by difficulty in moving the legs, severe pains when touched, and retinal hemorrhages is occasionally encountered in fatal cases of hyperemesis gravidarum. There is neither clinical nor anatomic evidence of toxic myelitis of the spinal cord in this case. However, there is both clinical and anatomic evidence suggestive of a toxic (?) hemorrhagic encephalitis. This clinical evidence consists of disorientation and irregular periods of coma, generalized pain and sensitivity of the skin, and marked weakness. The anatomic evidence consists of perivascular hemorrhages in the white matter of the brain, most extensive around the ventricles, and irregular degeneration and necrosis of nerve cells.

The fatty metamorphosis of liver is probably the most constant anatomic lesion of fatal cases of hyperemesis gravidarum. It varies considerably in amount but is usually present in some degree in most cases. Its clinical counterpart is a jaundice which may roughly parallel in intensity the degree of liver damage. The determination of the prothrombin content of the blood according to the method of Quick may be of considerable help in evaluating the part which the liver plays in this type of case. The more extensive involvement of the liver seen in eclampsia and acute yellow atrophy differs quantitatively rather than qualitatively. The frequency of liver damage of some degree, and the infrequency of death from hyperemesis gravidarum raise the question of the relation of acute yellow atrophy and the liver of eclampsia to the fatty metamorphosis of hyperemesis gravidarum. Also of interest in this connection is the so-called "pregnancy toxemia" encountered in pregnant ewes. This disease is characterized by hypoglycemia, ketonemia, uncertain gait and blindness. At postmortem the most characteristic feature is fatty metamorphosis of the liver. Although the etiology is unknown, recent work seems to correlate its occurrence with a diet of low total caloric value. In other words a relative starvation diet.

While cases of the toxemias of pregnancy may not require extensive laboratory investigations for clinical diagnosis, such investigations are of great importance in clarifying the fundamental nature and management of these conditions. Many phases of clinical investigation suggest a fundamental metabolic defect or defects. The increased blood uric acid in eclampsia especially when liver damage is present is a fairly constant characteristic and suggests an endogenous disturbance of nitrogen metabolism. The hemorrhagic manifestations of eclampsia suggest vitamin C deficiency. It has been demonstrated that the fetus acts as a parasite not only in relation to vitamin C but also with regard to calcium. It takes what it needs from the mother regardless of the supply available. The tetany of calcium deficiency and its resemblance to the convulsions of eclampsia is well known. The edemas of pregnancy are often associated with a low blood plasma protein content from inadequate proteins in the diet. These and many other suggestions present leads which should be more thoroughly investigated by available quantitative laboratory methods. Although they have not and may not provide a solution of the etiology of the toxemias of pregnancy, they aid in the differentiation of other conditions which may be confused with the toxemias of pregnancy and provide a more rational understanding and approach to the hygienic management of pregnancy.

Finally in regard to the statement of Robertson "that any attempt to correlate clinical phenomena with a given set of pathological conditions is foredoomed to failure", is well illustrated by these cases. Clinical phenomena are manifestations of altered functions which are reflected anatomically sometimes early, at other times late, and often by inference rather than actuality.

Diabetes and Pregnancy

In summary, one may state that the average diabetic patient can be adequately cared for during pregnancy provided the disease is carefully supervised throughout the antenatal period, labor, and the puerperium. Such complications as acidosis and coma are largely preventable; and the incidence of abortion and premature labor can be greatly reduced. With the proper induction of labor, in selected cases, the incidence of postmaturity and intrauterine death can be largely eliminated. It is difficult to state whether the increased incidence of fetal abnormalities noted in this disease can be altered. The gross fetal mortality will be somewhat higher than the usual fetal mortality in the non-diabetic individual. The maternal mortality will also be somewhat higher but adequate control of the disease at all times should reduce this to a minimum.—Bulletin No. 10 of a series published by New York Diabetes Assn., Inc.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

BRONCHIECTASIS

BRONCHIECTASIS and abscess are the most important nonspecific pulmonary infections, especially from the standpoint of public health. A study of the clinical material accumulated over a period of 10 years results in a number of etiological and clinical observations. Roentgenological examination is a minor aid in recognizing nontuberculous infections of the lung (though necessary in diagnosing their exact distribution and extent) because the anamnesis together with physical examination leads so securely to a diagnosis.

Of 200 patients' records wtih the diagnosis "bronchiectasis" admitted to the institution in a ten-year period, 140 were rejected for various reasons: i.e., bronchiectasis was diagnosed as a minor condition of little significance; it was merely registered as an impression; the bronchiectasis was a development secondary to tuberculosis. The remaining 60 cases that were studied include only those in whom moderate or pronounced symptoms of bronchiectasis were the sole reason for their having sought medical aid, in whom the presence of the condition was known and in whom a reasonable effort had been made to find extrapulmonary etiology. Almost all had an advanced degree of bronchial dilatation.

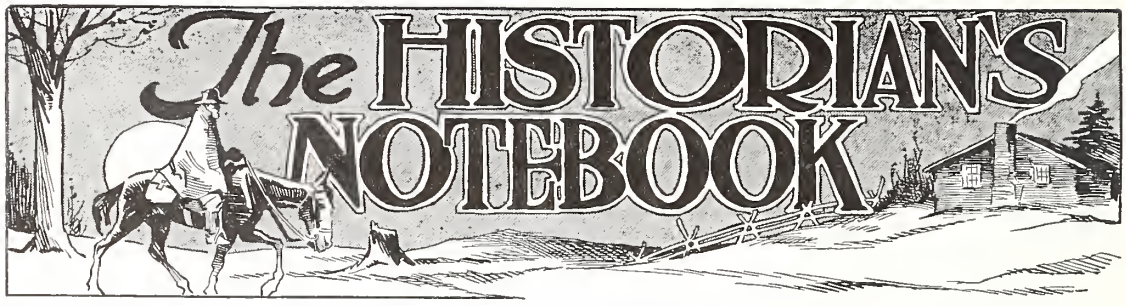
Primary, or predisposing conditions and the secondary or immediate cause, are recognized. The primary condition consists largely of the array of upper respiratory tract infectious diseases. Among the secondary causes, involvement of the nasal sinuses, chiefly the maxillary ones, plays the dominant rôle in the origin of bronchiectasis. In this series 45 per cent had definite, and 33 per cent indefinite, sinusitis. The discovery of a sinus condition is not only of etiological interest but of great therapeutic importance. Sinus involvement cannot be ruled out without a roentgenological examination. Treatment of sinusitis cannot be expected to influence existing bronchial dilatations except, perhaps, in the small child, but it is a prerequisite for the attempt to arrest the process.

The symptoms found in the group did not conform to current beliefs. The general condition was poor in 25 per cent and just fair in the rest. Copious expectoration, however, occurred only in about two-thirds, and odorous sputum, supposedly an outstanding characteristic of the condition, in less than half. Hemoptysis occurred frequently enough to be eliminated as a criterion in the differentiation of bronchiectasis from other pulmonary diseases, especially tuberculosis.

The therapy of bronchiectasis, until very recently, has been a disappointing chapter. Conservative procedures, such as general management, postural drainage, bronchial lavage, and bronchoscopic treatment, are palliative and any improvement is merely symptomatic. By meticulous care the progressive bronchial dilatation will, at best, be delayed, and the patient remains an easy victim for complicating or intercurrent disease. Collapse therapy has, on the whole, proved itself a failure. During the past few years very encouraging results have been reported from removal of bronchiectatic lobes. Lobectomy, however, requires a unilateral, or practically unilateral, involvement.

PREVENTION NEGLECTED

The most important of all therapies, prevention, has been sadly neglected up to now. There is a good deal of parental negligence toward chronic, upper respiratory infections and moderate chronic bronchitis in children. The threat of a severe and permanent bronchial damage is practically unknown. People to whom tuberculosis is a household word have not heard of bronchiectasis, although physicians recognize it as, next to neoplasm, the most hopeless pulmonary disease as far as restitution of the diseased part of the lung is concerned. Great concern is felt when a child aspirates a foreign body, considerable attention is paid nowadays to impairments of the respiratory function from allergic causes, but the danger of the slow and continuous drainage of infected material into the bronchial passages and of the resulting bronchitis is underestimated. And yet, it is the chief causative factor of bronchiectasis, especially of the extensive and life-threatening variety. We should venture to say that in proportion to the growing recognition of the rôle which chronic sinusitis has in this disease, its occurrence should decrease. At present it needs to be looked upon as a public health problem requiring the efforts of agencies concerning themselves with public health. By propaganda, examination of the sinuses, including a roentgenogram, should be suggested to the parents and guardians of all children in whom no other cause of a chronic cough can be found. The competent treatment of sinus conditions should be suggested.—Robert G. Block, M.D., and Byron F. Francis, M.D., Amer. Review of Tuberculosis, Vol. XXXVIII, No. 6, June, 1938.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

A Few Early Ohio Doctor-Statesmen

DONALD D. SHIRA, M.D.

THERE is a natural inclination on the part of those who have not looked into the subject carefully, to think of early Ohio physicians as unschooled, and as crude in manner as the drugs which they usually administered. Singularly, such was not the case. Many of them were products of eastern literary colleges, and had either attended medical lectures at such universities as Pennsylvania, Harvard, Yale or Dartmouth, or had had a thorough training under some competent physician. Not only were most of them well versed in contemporary medical literature, but familiar with the classics of Latin and Greek as well. As an example Dr. John Cotton, who practiced medicine in Marietta from 1815 to 1847, and who was president of the 1829 and 1831 Ohio Medical Conventions, delivered, in Latin, the inaugural address at the installation of the first president of Marietta College.[1] How many present-day physicians could fill a like order? Early physicians, because of their superior educational, intellectual and cultural attainments were often civic and political leaders. Without solicitation on their part political honors were frequently bestowed upon them. In the list one finds a governor of the state, national and state senators and representatives, associate judges, postmasters, county officials and land agents. In nearly every community, true to the altruistic nature of their calling they were instrumental in founding colleges, academies, public schools, churches, libraries, literary societies, museums and benevolent institutions. As a matter of fact their average standard of literary and medical education was far higher than that of physicians say three-quarters of a century later, when medical diploma mills were wholesaling diplomas to comparative illiterates at so many dollars per.

It would of course be impossible, in a sketch so short, to enumerate all the physicians who, in the formative period of our state's history, played a prominent rôle on the political stage. There are a few, however, who are deserving of particular attention, not only because of the political influence which they wielded, but also because of their commanding position in medical practice and organization.

The Author

● Dr. Shira, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1914; assistant secretary, Ohio Public Health Association.

Edward Tiffin (1866-1829)

First Governor of Ohio

Dr. Edward Tiffin was born June 19, 1766, in Carlisle, England. He studied medicine at the University of Pennsylvania. In 1786 he began the practice of medicine in Charleston, Va. A short time later (n.d.) he moved to Chillicothe, Ohio, where in 1789 he married Mary Worthington, sister to Governor Worthington. He was elected a member of the territorial legislature in 1799 and became speaker of the house. In 1802 he was elected president of the Ohio Constitutional Convention. To Dr. Tiffin goes the honor of being the first governor of Ohio, to which office he was elected in 1803, and again in 1807, each time without a single dissenting vote, which gives him the unique distinction of having been the only governor to be elected unanimously. But Dr. Tiffin was destined to rise still higher in the political world. In 1807 he was elected to the United States senate, from which august body he resigned in 1809. The same year he was again elected to the Ohio house of representatives and was its speaker during the eighth and ninth general assemblies. Upon expiration of his term as

(1) Williams and Bro. Hist. of Washington Co., Ohio, Vol. 1, p. 410.

a representative he was appointed Commissioner of the General Land Office with offices in Washington, D. C. However, nostalgia got the best of him and he returned to Chillicothe to become Surveyor General of the West, which position he held till the end of his life. Although vast sums of government money passed through his hands it is said that an audit of his books after his death showed his accounts to be correct to the last penny.

Before his entrance into politics Dr. Tiffin enjoyed a large practice in Chillicothe, and stood in the front rank as a surgeon and physician. He was an urbane and cultured gentleman, equally at home in the ball room or legislative halls.

Dr. Tiffin died at Chillicothe August 9, 1829.

Comegys, C. G., Mag. of Western Hist. 1884. pp. 235-245.
Portrait His. and Biog. Cyclo. of Ohio. 1883. Vol. 1, p. 158.

Alexander Campbell (1779-1857)

Dr. Alexander Campbell was born in 1779 in Greenbriar county, Va. His father died when he was twelve years of age and up until that time he had never attended school. His widowed mother moved with her children to Kentucky shortly after his father's death. Following a very desultory common school education Dr. Campbell read medicine under Drs. Reighley and Brown at Lexington, Ky., home of Transylvania University. After completing his apprenticeship he located (1804) near Ripley, Ohio, being the first physician to practice in Clermont county.

In 1807 Dr. Campbell was elected a member of the Ohio house of representatives, and became its speaker in 1809, during which year he was elected to the U. S. senate. Dr. Campbell's resignation as speaker of the house is sufficiently quaint to justify its inclusion herein:

To the clerk of the House of Representatives.

Dear Sir:

Through you I wish to inform the house of representatives, that I have delivered to the governor my resignation as a member, and embrace this opportunity of returning my greatful (sic) acknowledgments for the honor and trust confered (sic) upon me, in appointing me a senator in the congress of the United States.

With sentiments of high esteem.

I am, etc.

Alexander Campbell.

Chillicothe, Dec. 12, 1809.

Dr. Campbell served as state senator in the 21st and 22nd general assemblies (1822-1824) and was again a member of the house of representatives in the 31st general assembly (1832). In 1826 Dr. Campbell was a candidate for governor but was defeated by Allen Trimble.

Dr. Campbell died in 1857.

Evans and Stivers, History of Adams Co. O. 1900. p. 279 (Portrait)
House Journal (Ohio) Vol. 8, 1810. p. 58.
Taylor, Wm. A., Ohio Statesmen and Annals of Progress. 1899. Vol. 1, pp. 52, 57, 60, 111, 158.

Tom O. Edwards (1810-1876)

Born in Williamsburg, Md., in 1810, Tom O. Edwards was destined to a checkered career. In 1831 he became a student of medicine at the University of Maryland and in 1835, in company with his father-in-law, Dr. George Boerstler (who by the way was the first president of the Ohio State Medical Society, 1846), located at Lancaster. He practiced medicine until 1848 when he was elected to the U. S. house of representatives from the 9th congressional district. While in congress he became a national figure because of his introduction of the first pure drug bill. He was present in the house when ex-president John Quincy Adams suffered a stroke of apoplexy and was his physician until he died.

Upon the expiration of his term in congress Dr. Edwards became sort of a will-o'-the-wisp. In 1850 he became manager of a large drug store in Cincinnati, and about the same time became professor of materia medica in the Medical College of Ohio. The year 1855 finds him practicing medicine in Iowa. In 1860 he enlisted in the Union Army serving as surgeon until he was wounded (n.d.) at Pittsburgh Landing.

Sometime after leaving Cincinnati, being in financial straits, Dr. Edwards became a prospector and went to Pikes Peak during the gold rush but "the results were barren".

Dr. Edwards died in 1876 at Wheeling, W. Va.

Juettner, Otto, Daniel Drake and his Followers. 1909. pp. 154, 218.
Wiseman, C. M. L., Centennial Lancaster. 1898. p. 242.

Jared Potter Kirtland (1793-1877)

"The Sage of Rockport"

Dr. Frederick C. Waite, Cleveland, has written such a careful biographical sketch of Jared Potter Kirtland that it would be superfluous here to enter into any of the details of his life. A few of the highlights will suffice. He became the first matriculant in the Medical Department of Yale University, attended the Medical Department of the University of Pennsylvania (1813-1814) and received his M.D. from Yale in 1815. At the age of 23 (1817) he was elected to the office of probate judge. In 1823 he came to Ohio, locating at Poland. From 1829 to 1834 he rendered valuable services to the state as a member of the Ohio house of representatives. Dr. Kirtland, in 1837, became professor of theory and practice of physics, Medical College of Ohio, and was appointed to the same professorship in Willoughby Medical College (1842), and in the Cleveland Medical College (1844). In 1848 Dr. Kirtland made the first geological survey of Ohio.

Dr. Kirtland had a national reputation as a horticulturalist, was editor of *The Family Visitor*, a weekly paper published at Hudson, Ohio, and was the founder of the Cleveland Academy of

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Natural Sciences, now known as the Kirtland Society of Natural History. He was president of the Ohio Medical Convention in 1838, and of the Ohio State Medical Society in 1848.

Dr. Kirtland died December 18, 1877, at Rockport, Ohio.

Waite, Frederick C., Pioneer Med. in the Western Reserve. 1932. pp. 55-63.
Kelly and Burrage, Amer. Med. Biog. 1920. pp. 665-666.
Juettner, Otto, Daniel Drake and his Followers. 1909. pp. 171-174.
Atkinson, Physicians and Surgeons in U. S. 1878. p. 490.
Taylor, Wm. B., Ohio Statesman and Annals of Progress. 1899. Vol. 1, pp. 138, 153, 165.
Medical Conventions of Ohio. 1839. p. 4.
Trans. Ohio State Med. Soc. 1850. p. 6.

Michael Z. Kreider (1803-1855)

Dr. Michael Z. Kreider was a forceful character and a conspicuous figure in south-central Ohio during his rather brief career. It is said that so prepossessing and striking was his appearance that once seen he was never forgotten. He was widely known as a skillful surgeon.

Dr. Kreider was born in 1803 in Huntington, Pa. At the age of 17 he came to Delaware county, Ohio, and became apprenticed, in 1822, to Dr. Samuel Parsons of Columbus. He first located at Royalton, Ohio (1825) but five years later moved to Lancaster. In 1832 he was elected to the state legislature and was for many years clerk of the Fairfield county common pleas court.

Dr. Kreider's activities carried him into many fields outside that of medicine. He was the first Grand Eminent Commander of the Knights Templars of Ohio, and Grand Master of F. and A. M. He owned a drug store in Lancaster, was the manager and owner of a line of stage coaches, and curator of the Historical and Philosophical Society of Ohio. He was recording secretary of the Ohio Medical Convention from 1835 to 1841, and first vice president in 1846.

Dr. Kreider died July 20, 1855 of diabetes mellitus.

Kelly and Burrage, Amer. Med. Biog. 1920. pp. 674-675.
Wiseman, C. M. L., Centennial Lancaster. 1898. p. 240.
Bryan, John A., Ohio Annual Register. 1835. p. 90.
Wiseman, C. M. L., Pioneers of Fairfield Co., O. 1901. p. 61-62.

Robert Thompson (1797-1865)

During the formative period of medical organization in Ohio Dr. Robert Thompson was by far the most faithful attendant at meetings and conventions. He did not miss a single state convention from 1829 to 1847. At various times he held the offices of treasurer and corresponding secretary, and in 1842 was its president. He was also one of the founders and a charter member of the Ohio State Medical Society.

Dr. Thompson was born in 1797 in Washington county, Pa. He studied medicine with Dr. George McCook of New Lisbon, Ohio, and in 1824 was licensed to practice medicine by the 14th Medical District of Ohio.

The following advertisement advises the public as to his first location:

"Dr. R. Thompson gives this notice to the public from Crooked Creek, Muskingum county, that he may be found at his residence, one mile east of Proudfit's meeting house. He will attend to all calls in the line of his profession".

He next located (n.d.) in Washington, Guernsey county, from which county in 1831, he was elected to the Ohio state senate being a member of the 30th and 31st general assemblies.

In 1833 Dr. Thompson removed to Columbus as attested by the following newspaper insertion:

"Dr. R. Thompson, having located himself in Columbus tenders his professional services to the afflicted in town and country. Office a few doors east of the Franklin Building, Broad St., Columbus".

In 1832 Dr. Thompson was made M.D. "honoris causa" by the Medical College of Ohio. He was a competent surgeon, invented many surgical instruments and appliances, and wrote many medical articles.

Dr. Thompson died August 18, 1865.

Sarchet, C. P. B., History of Guernsey Co., O. 1911. p. 204.
Kelly & Burrage, Amer. Med. Biog. 1920. p. 1142.
Juettner, Otto, Daniel Drake and his Followers. 1909, p. 145.
Ohio State Journal, Nov. 16, 1833. N. S. Vol. 3:10:1.
Taylor, Wm. A., Ohio Statesmen and Annals of Progress. 1899. Vol. 1, p. 157.

Many other pioneer physicians served either in the congress of the United States or in the state legislature but lack of space will permit brief mention of only a few.

Samuel Prescott Hildreth (1783-1863)

Dr. S. P. Hildreth as a member of the state legislature in 1811 personally drafted and steered through the general assembly the first law in Ohio designed to regulate the practice of physic and surgery.

Note: See Ohio State Med. Jour., Dec., 1938. Vol. 34:12:1369.

John Thompson (_-1852)

Dr. John Thompson located in New Lisbon in 1807 and was perhaps the first physician to practice in that settlement. He served five consecutive terms (1826-1836) in the United States house of representatives.

Mack, Horace, Hist. of Columbiana Co., O., 1879. p. 44.

Robert Mitchell (_-1848)

Dr. Robert Mitchell was the third physician to locate in Zanesville. He was very active politically. He was elected to the state legislature in 1815, serving in the 14th and 15th legislative sessions. From 1818 to 1832 he served as an as-

sociate judge. In 1832 was elected a representative in the U. S. congress. Dr. Mitchell was also a Brigadier General, 3rd Division, Ohio State Militia.

Everhart, J. F., Co. Hist. of Muskingum Co., O. 1882. p. 141.

Zanesville Republican, Oct. 20, 1832. Vol. 11:11:3.

Taylor, Wm. A., Ohio Statesmen and Annals of Progress. 1899. Vol. 1, pp. 83, 85.

John Hamm (1776-1861)

Dr. John Hamm was probably Zanesville's most distinguished early-day political figure. He first located in Chillicothe about 1808 and moved to Zanesville in 1809. In 1812 he was elected to the state legislature and was a presidential elector the same year. He was elected to the state senate in 1829, and shortly after the expiration of his term was appointed Charge d'Affairs of the Republic of Chili by President Andrew Jackson.

Everhart, J. F., Co. Hist. of Muskingum Co., O. 1882. p. 141.

Taylor, Wm. A., Ohio Statesman and Annals of Progress 1899. Vol. 1, pp. 73, 136.

Henry Manning (1787-1869)

Dr. Henry Manning located in Young's Town (Youngstown) in 1811. Three years later, 1814, he married Lucretia Kirtland, daughter of the famous Dr. Jared Potter Kirtland. Although he built up a very fine practice he found time to participate in political activities. In 1819 and in 1843 he was elected a member of the Ohio house of representatives, and in the interim (1825) a member of the state senate. Dr. Manning was a powerful figure in Youngstown financial circles having been elected president of the Mahoning County Bank in 1854, and of the First National Bank in 1866.

West. Biog. Pub. Co. Hist. and Biog. Cyclo. State of Ohio. 1884. Vol. 3, p. 793.

Taylor, Wm. A., Ohio Statesmen and Annals of Progress. Vol. 1, pp. 96, 122, 210.

Note: For biog. sketch and portrait see Ohio State Med. Jou. Sept., 1936, Vol. 32:9:855, by Sidney M. McCurdy, M.D.

Thomas Waller (1774-1823)

Dr. Thomas Waller located in Alexandria in 1801. He was elected to the state legislature in 1804, becoming the first representative from Scioto county. He moved to Portsmouth in 1810 being the first physician to practice in that city, where he also operated the first apothecary shop.

Evans, Nelson W., Hist. of Scioto Co., O. 1903. p. 541.
Keyes, James, Pioneers of Scioto Co. 1880. pp. 106-107.
Taylor, Wm. A., Ohio Statesmen and Annals of Progress. 1899. Vol. 1, p. 43.

So endeth the saga of how a few of the members of the "faculty" assisted at the birth of the infant Ohio and helped to nurse it along to lusty adolescence.

Note: Any additional information concerning the physicians mentioned will be gratefully received.—Author.

Thomas Wingate Todd
1885—1938

ELLIOTT CARR CUTLER, M.D.
Boston, Massachusetts

We are met together to do honor to a dear colleague and to try to console his family and ourselves by paying just tribute to one who did so much for us, his colleagues and friends, in our day as well as for this University for all time. He came to this City in 1912, a tall young lowland Scot, sturdy and straight in mind and body, endowed above most people with a driving energy that followed a poetic and restless ambition. In the more than a quarter century of service to this University his contributions have erected a body of scientific material that will long prove useful and will forever benefit humanity.

Thomas Wingate Todd was born in Sheffield, England, January 15, 1885, and died in Cleveland, Ohio (U.S.A.), December 28, 1938. His father, James Todd was a Wesleyan Methodist minister and perhaps some of Dr. Todd's mysticism had its origin in this Celtic religious union. Following education in local schools he went to the neighboring Manchester University from which he graduated with first honors in 1907. His scholarly and investigative nature was revealed during this period when he took prizes and won scholarships in anatomy, physiology and surgery. That his career lay in anatomy became apparent immediately upon graduation, for though he began by acquiring clinical training in surgery as House Surgeon at the Manchester Royal Infirmary (1909-1910) and later on in other hospitals, he at the same time worked hard at anatomy. Serving first as Demonstrator of Anatomy (Manchester 1907-1908) and later as Lecturer in Anatomy (Manchester 1910-1912) he not only organized courses in clinical anatomy for the medical students, but established a course in anatomy for students in the school of art and courses in neurology for students in psychology. Also he was in charge of arranging and cataloguing the collections of skeletal material from Egypt sent to England by the Nubian Archeological Survey. Best of all he came into close contact with G. Elliot Smith and Arthur Keith, teachers to whom all his life he paid the most generous and affectionate tribute. His first six papers appeared in 1910 in the Manchester Medical Student's Gazette, and these emphasized the poetical and mystical side of his disposition as well as his anatomical bent. The next five papers appeared in anatomical journals and all were confined to studies of cervical rib and its anatomical relationships. This sequence alone reveals his

*Lines read at the Memorial Service, Amasa Stone Chapel, Western Reserve University, Cleveland, Ohio, January 15, 1939.

perseverance and desire to finish completely a problem once it was begun.

Thus we see in the first five years after his graduation how the twig was bent and the direction in which it would grow. We see clearly his anatomical, archeological and anthropological bias; we see that curious combination of the mystic and poet with the insatiable curiosity and thoroughness of the scientist. Certain titles among his earliest publications, "Tablets of Brass," "What's in a Name," "Celestial Thieves," revealed the poet and the mystic; his Celtic ancestry helps this thought; his serious studies in anatomy point the road, and the influence of his archeological studies is seen throughout his life. His teachers themselves, Elliot Smith and Keith, were not then as widely known as anthropologists as they were later to become, but doubtless their interest already lay in that direction and the thirsty Todd drank liberally at their spring. Finally he tried his hand at practice, acquired first-hand information concerning the care of the sick, and learned enough clinical surgery to appreciate the desires and needs of the medical student and the young practitioner. This part of his education made his anatomical lectures more real and practical, and doubtless played a rôle in his being among the earliest to use the X-ray in his anatomical instruction. Roentgen, himself, who had done so much for humanity would have been pleased at such a utilization of his discovery.

Characteristic of the man, he entered the Canadian Army Medical Corps during the War and was in service in both Canada and Wales.

There is no time here to review Dr. Todd's entire career. From the time he came to Western Reserve University as Henry Willson Payne Professor of Anatomy (1912) until his last days he ploughed steadily, throroughly and deeply the rich fields of anatomy, archeology and anthropology. His industry was enormous. Medical students knew they would never reach the laboratory before him mornings, and Sundays he spent in mopping up after the week's work and in setting down the program of the week to come. His laboratory was a beehive, and as with that orderly and industrious insect, the bee, the drones received scant notice and kept themselves out of sight.

Though the deepest furrow in his own work seems to have been physical anthropology, there were many lesser furrows running parallel to this major concern. He early manifested a great interest in comparative anatomy; indeed this antedated his arrival here, for one of his earliest studies of cervical rib included the anatomy of mammals other than man. By 1924 when I came to Cleveland this interest was like folklore among the students; stories of his dissection of an elephant in the alley next to the school were frequently related. As his pursuits began to focus more and more on the skeleton his knowledge of archeology and anthropology increased and widened; his thorough-going nature demanded comparative studies and led to his great collection of primate skeletons and the innumerable specimens in the Hamann Museum. And all the time his collection of human skeletons was greatly enlarged and improved by better methods. This mass of material was incessantly cultivated, sifted, catalogued, submitted to accurate anthropometric studies and the results published. It also provided for formal and informal addresses which he so often gave in a light and happy vein under almost poetic titles such as "A Liter and a Half of Brains," "Yardsticks for Humanity," or "Growth, the Gypsy."

In 1929 the establishment of the Brush Foundation led to a new furrow in Dr. Todd's work-program. Here was the opportunity to conduct measurements on the living not on the dead. The Spelman Memorial Fund was added to this same purpose and thus material was provided for a thorough and elaborate study of adolescent man. This interest in growth became an absorbing passion for him. By 1938 more than 4,000 children had been submitted to careful roentgenographic measurements under many differing conditions and from this we now have valuable criteria concerning growth which should greatly benefit child life the world over.

It is not our purpose to list here all the honors and positions that came to our beloved and esteemed friend. Suffice it that in his chosen fields he was an acknowledged leader. In the American Association of Anatomists he was an outstanding and much-loved member for both his contributions and his wit and humor. In the field of child development and child health he sat on most of the important National committees. For 1938-1939 he was President of the American Association of Physical Anthropologists. His membership in scientific societies included all those which deal with the fields for work he chose to plough. His devotion to Cleveland and the opportunities for work here in his chosen field are further emphasized by his refusal to consider the post of Conservator of the Hunterian Museum of the Royal College of Surgeons of England and Director of the research laboratories on the retirement of Sir Arthur Keith.

And now for the man—I loved him. He lived for the day as it came and went, both at home and in the laboratory. His outlook on life was large. His interests roamed everywhere. His family was to me one of the most interesting and devoted in Cleveland. His children's careers were

always in his mind and heart, and his wife was his perfect complement. In spite of his tremendous industry he also knew how to play and enjoyed enormously his vacations among the Muskoka Lakes. Here, however, as in the laboratory he was equally active; noticing everything, he found much to do; and his generous heart kept him busy for others when his own work was not before him.

Dr. Todd was courageous and never leaned on others, though he was always willing to help. This willingness to help is seen when he frequently performed the work of a diener in his laboratory rather than see routine work go by the board, although this was done at the sacrifice of time he would have liked to spend in creative endeavor. In the Faculty he was independent and forceful and did yeoman work on the Curriculum Committee for many years. His industry was a blessing and a fine example for this School, his scientific thirst was insatiable, and his contributions leave all humanity his debtor.

Beyond the Medical Horizon

There are doctors who boast that they have not had a vacation in many years. They say with satisfaction that they go home exhausted. Their families see them only at mealtime.

When the student finishes his medical collegiate training he is likely to view the world as his oyster and to think that diagnosis and therapy are easy. In his hospital years a few vague doubts begin to enter his mind; after he enters actual practice on his own responsibility, the outlook is more and more foreboding, until in his mature years in medicine he realizes that he cannot possibly learn all there is to know, or even all that he should know, about medicine, even a narrow segment of it. He must continue to study it, to follow current literature, to view his results of diagnosis in the surgery or perhaps in the autopsy room. He must keep eternally at it; but he cannot. As his mind grows older it does not lose the ability to learn, but it does lose its facility. The doctor is conscientious; he studies whenever he can, but he finds that an increasingly large number of important facts are being discovered; he has progressively less time for reading, and finally he finds himself overwhelmed. Then he decides wisely that he must do as best he can and he limits his study of medicine to that most pertinent. Often he finds that he can be most valuable if he limits his work and research to a special field.

Each physician must make his decision in the matter; but it seems that those who decide that they are unable to cope with every medical problem, and that to round out their lives they must occupy part of their time in non-medical pursuits, are the happiest members of the profession.

Then they begin to take vacations, to restore not only the physical body but the mental clarity. They may travel; they may indulge long pent-up desires in devoting time to the arts, or to sciences other than medicine. They have more actual contact with their families, and help to train and educate more efficiently their children. Their changed outlook is reflected in their work with their patients. They are cooler in emergencies and clearer in thought when a diagnostic problem arises.

Some of us, therefore, disagree with Pope. We are not so certain that we must concentrate every living moment on one narrow path. We recognize the value of many-sided interests, granting the predominance of our special science. Some of us can do work of importance. Once in a while, one of us can write a good book on a non-medical subject. It is not impossible that some of us can do something of genuine importance in the field of music or of painting. We may be of usefulness in the fields of social service or civic duty. We may invent something of great value to our fellow citizens.

And with all this, we may be useful to our patients as physicians and also as counselors in the more practical problems which arise in everyday life.—R. M. Watkins, M.D., Bulletin, Acad. of Med. of Cleveland, Vol. XXIII, No. 2, February, 1939.

Program on Medical History

On April 7, in connection with the annual meeting of the Ohio Archaeological and Historical Society, its section on Medical History, of which Jonathan Forman, M.D., of Columbus, is the chairman, will present its first formal program. The program committee, consisting of Drs. Robert Paterson, Don Shira, Harry L. Rinehart and Jonathan Forman, has arranged for a series of papers covering the history of medicine in Ohio from its earliest settlers to the repeal of its practice act (1788-1835).

An attempt will be made in this program to give a picture of the Ohio doctor in relation to the times. The subjects will be treated in an authoritative manner by competent persons. In addition to sketching the picture of what is known of these early days, great effort will be made to point out the gaps in present knowledge in the hope that qualified persons will be stimulated to undertake the necessary research to supply this missing information.

This meeting will be held in the Museum of the Society at Fifteenth Avenue and High Street, Columbus, on Friday afternoon, April 7, beginning promptly at 2 P.M. All citizens who are interested in any way in history of the Ohio physician and Ohio medicine are most cordially invited to attend.

The Proceedings of the Mid-Winter Meeting of the Ohio Society of Pathologists

THE Mid-Winter meeting of the Ohio Society of Pathologists was conducted under the auspices of the Department of Pathology of the Ohio State University, Saturday afternoon, January 28, 1939, with Dr. R. S. Fidler, president, presiding. A representative group of pathologists from all portions of the state attended the meeting.

Abstracts of the papers presented at the scientific session are presented.

The Importance of Blood Groups for the Determination of Paternity—Laurence H. Snyder, professor of medical genetics.

It is possible to use certain hereditary characters in human beings as diagnostic tests of paternity. To be so used, a character must satisfy four criteria:

1. It must be inherited in a manner that is exact and is thoroughly understood.

2. It must be so objective and so sharply defined as to give consistent results to all qualified observers.

3. It must remain constant in its expression throughout the life of the individual.

4. Both the character and its alternative expression must be abundant enough in the general population to be of practical value in such tests.

Thus far these criteria have been satisfied by only two sets of characters. They are the well-known blood groups (O, A, B, AB) and the lesser-known blood types (M, N, MN). Careful genetic study has established beyond question the mode of inheritance of these characters. Twelve possible combinations of the agglutinogens A, B, M and N are possible. Knowing the agglutinogens present in the mother and the child, it is possible to state the agglutinogens which must be present in the father. In other words, knowing the blood groups and blood types of the mother and the child, it is possible to state the group and type to which the father can not belong.

If the alleged father belongs to a group or type to which the true father can not belong, then the alleged father is not the true father. If, however, the alleged father is of the required group and type, then he could be the true father, but can never be proved by such tests actually to be the true father. The value of such tests, then, lies in those cases in which an exclusion is possible. Tables have been prepared and published listing the combinations resulting in exclusions.

The writer and his colleague, Dr. Harriet S. Hyman, have performed 35 tests for disputed paternity for the courts of Ohio. Seven of these cases resulted in exclusions. Two of these cases are still before the courts.

New York and Wisconsin have laws regulating the use of blood tests in disputed paternity cases. The present legislature has before it a bill to regulate the tests in Ohio. Should it pass, the laboratory diagnosticians of Ohio will very probably be called upon to perform and interpret blood grouping and blood typing tests throughout the state.

The Increasing Importance of Bone Marrow Biopsy in Clinical Medicine—Charles A. Doan, M.D.

The clinician desires the most complete and accurate data available during life for the better understanding of the exact mechanism underlying the symptoms and signs of disease. This knowledge is prerequisite to any attempt at rational therapy.

Neither the pathologist nor the clinical pathologist has been able in the past to furnish precise data with reference to the hemolytopoietic disturbances. Two requisites are essential for the acquisition of information in this area:

(1) An understanding of the complex relationships of the various blood and connective tissue cells, and their respective maturation sequences in terms of the finer morphologic criteria, and

(2) A readily applicable technique for the securing of adequate samples of tissue for study.

The peripheral blood affords the most readily accessible tissue for sampling, and directly reflects the relative number and type of cells being transported in the circulation from the source of supply to the point of function. It has long been a custom, when otherwise obscure enlargement of the lymph nodes occurs, to remove for histological study under local anesthesia a node or group of nodes. With the demonstration by Seyfarth of the ease with which bone marrow samples may be obtained by needle puncture from the sternum, there became available a much more readily and easily applied technique than surgical trephine for the securing of this type of tissue. In the vast majority of instances, this relatively simple medical procedure is entirely adequate to provide material either for specific differential diagnosis, as in the case of multiple myeloma, metastatic carcinoma, leucosarcoma, etc., or for the direct

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Reference: Hyman, H. S., and Laurence H. Snyder, 1936. The Use of the Blood Tests for Disputed Paternity in the Courts of Ohio. Ohio State Law Journal, Vol. 2, No. 3, pp. 203-219.

analysis of the state of hemocytopoiesis, which may not always be accurately reflected by the peripheral blood count.

Any difference of opinion as to the relative merits of the methods of securing bone marrow samples must be distinctly subservient to the ability of the clinical pathologist to interpret the material obtained. Using the needle puncture method, only one or two drops of marrow material should be removed so that there will be a minimal dilution with blood. Supravital and cover-slip or slide preparations should each include a definite, clear plaque of marrow substance. Some idea of the relative cellularity of the marrow may be obtained by actual counts of the nucleated cells taken with red and white cell pipettes and counted in a hemocytometer. The remaining material is allowed to clot, is fixed in Zenkerformol, and subsequently embedded, sectioned and stained quite as any other tissue might be. Thus four types of preparations are possible under optimum conditions from material obtained by needle puncture.

The final criterion as to the adequacy of any test or technical procedure is the information it provides in actual practice. We have used the above procedure for the last several years in the hematology clinic at the Ohio State University with increasingly satisfactory results. Using such conditions as pernicious anemia in relapse, with subsequently stimulated remission by appropriate therapeutic agents, it has been possible to follow both the qualitative and quantitative changes which occur progressively in the marrow, controlling the bone marrow observations with cytological (reticulocytes, granulocytes, thrombocytes) and chemical (quantitative plasma iron) determinations. Under these conditions the erythrocyte maturation sequence from megaloblast through early and late erythroblast, to normoblast, reticulocyte and mature erythrocyte has been confirmed and related to the corresponding utilization of iron in the synthesis of hemoglobin, both of which are dependent upon the Erythrocyte Maturation Factor.

In purpuric states it has been important to determine whether a given peripheral thrombocytopenia was a reflection of decreased megakaryocytes in the bone marrow or was being caused by peripheral pathologic phenomena. In granulopenic states we have been able to determine whether there was a myelocytic hypoplasia or hyperplasia, the etiological significance of the leucopenia being at times dependent upon this differentiation of central activity.

It may be concluded that adequately performed and properly interpreted biopsy material obtained from the sternal marrow is of distinct aid at the present time in the formation of clinical judgments and in the direction of rational therapy.

Bacteriology of Food Poisoning—Oram C. Woolpert, M.D.

In considering food poisoning from the bacteriologic point of view, we exclude allergic reactions, food-borne diseases such as typhoid, reactions to various plant and animal toxins, and metallic or other known poisons. Members of three genera of bacteria are accepted as causing food poisoning. These are: Salmonella, Clostridium, and Staphylococcus.

Of the Salmonella, S. aertrycke and S. enteritidis are of most importance. It is now believed that these do not produce toxins which are effective when swallowed, but that Salmonella poisoning is a true infection. The organisms should be sought in the suspected foods or the ejecta of the patient by the usual technics for the isolation of intestinal pathogens.

Botulism and staphylococcus food poisoning are true intoxications. We should, if possible, demonstrate the specific toxin in the incriminated food. Botulinum toxin is readily identifiable by the intraperitoneal inoculation of mice. Control groups of mice should be protected with Type A and Type B antitoxin, respectively. Demonstration of Cl. botulinum spores in particular foods is not conclusive since such spores are widely distributed.

Various strains of Staphylococcus, either aureus or albus, can produce enterotoxin. There is no reliable cultural test for the identification of food poisoning strains. All such strains are hemolytic, but hemolytic strains are not necessarily enterotoxigenic. For demonstration of the toxin man and monkeys have been used, but the use of man is hazardous. Smaller animals do not respond to orally administered toxin. Proof that the food contains staphylococci, even of the food poisoning type, is not final evidence of staphylococcus food poisoning because of the ubiquity of the staphylococcus.

Tissue Seminar—A seminar devoted to histopathological study was conducted by Dr. Horace B. Davidson. Tissue slides for microscopic diagnosis with pertinent available clinical information were collected by Dr. Davidson and mailed to each of the society members. The diagnoses were then submitted to Dr. Davidson before the meeting and he analyzed the data thus collected and presented it to the society. Microprojection and round table discussion of each case followed. It is manifestly as important that the pathologist be supplied with clinical information for study of gross and histopathology, as it is for the clinician to be supplied with the pathologist's interpretation of the tissue analysis. Both the clinician and the pathologist are endeavoring to arrive at a diagnosis which will aid in the understanding and management of the case, and both should be supplied with all the pertinent available data. Such cooperation assures the greatest efficiency

in diagnosis, and is a stimulus to closer cooperation between clinician and pathologist. This type of study will be continued at each of the quarterly meetings of the Society. The scientific sessions are open to all members of the Ohio State Medical Association. The next round table discussion will be held in Toledo; the time and place will be announced through *The Ohio State Medical Journal.*

Proposed Amendment To By-Laws of State Association, To Be Voted On at Toledo Annual Meeting

In compliance with the provisions of Chapter 15, Section 1, of the By-Laws of the Ohio State Medical Association, requiring proposed amendments to the By-Laws to be published in *The Journal* one month before the Annual Meeting at which they are to be acted upon by the House of Delegates, The Council has authorized the publication of the following resolution proposing to amend Chapter 4, Section 6, of the By-Laws:

"That Chapter 4, Section 6, of the By-Laws of the Ohio State Medical Association be amended by striking out the word 'ten' following the word 'establish', making the section read as follows:

" 'Sec. 6. Councilor Districts. The House of Delegates shall establish councilor districts. A district society may be organized in any of the districts to meet at such time or times as the society may fix, provided the dates chosen do not fall within a period of two weeks preceding or two weeks following the annual meeting of this Association.

" 'The presidents of the component societies in the several districts shall be vice presidents of their respective district societies.' "

The proposed amendment will be presented to the House of Delegates at its first session on the morning of the opening day of the 1939 Annual Meeting, May 3 and 4, Toledo. If approved by the House of Delegates, The Council will present a redistricting proposal for the consideration of the House of Delegates. (See January, 1939, issue of *The Journal*, pages 82-83). The plan proposes the formation of one additional councilor district. This cannot be done unless Sec. 6, Chapter 4 of the By-Laws is amended as that section at present specifies that there shall be "ten" councilor districts.

Youngstown Postgraduate Day

The Twelfth Annual Postgraduate Assembly of the Mahoning County Medical Society will be held at the Hotel Ohio, Youngstown, Thursday, April 20. Speakers will be members of the faculty of the University of Pennsylvania School of Medicine.

Dr. Markwith Well-Equipped In Training and Experience for Post As State Director of Health

Dr. Roll H. Markwith, Akron, health commissioner of Summit County for 16 years, has assumed his duties as State Director of Health, having been appointed by Governor Bricker on January 30.

A son of the late Dr. A. F. Markwith, who practiced medicine for over 30 years, he was born in Greenville, Ohio, February 22, 1894. In 1917 Dr. Markwith graduated at the Ohio State University College of Medicine. During his senior year he served as an extern at Protestant (now White Cross) Hospital, Columbus, and the following year was resident at that institution.

Dr. Markwith's postgraduate training in public health was received at University of Dijon, France; Yale University School of Medicine; Rockefeller Institute, and a short course at Ohio State University College of Medicine following his return from 14 month's service in France as a first lieutenant in the Medical Corps of the United States Army. After a few month's association with his father in private practice at Greenville, Dr. Markwith joined the medical staff of the B. F. Goodrich Company in Akron. In 1921 he became assistant health commissioner of Summit County, and was promoted to head of the department in 1923.

Dr. Markwith was an active member of the Summit County Medical Society, having been a member of several important committees, including medical economics, public health and postgraduate day. He has served as chairman and secretary of the Section on Public Health of the Ohio State Medical Association. Dr. Markwith is also a Fellow of the American Medical Association and the American Public Health Association. Last year he was elected president of the Ohio Federation of Public Health Officials. In background, training and experience, Dr. Markwith is well-qualified for his new post.

Former State Treasurer Knisley Becomes New Member of Industrial Commission

Clarence H. Knisley, Bainbridge, state treasurer for the past two years, has succeeded Thomas M. Gregory, Cincinnati, as a member of the State Industrial Commission. Mr. Knisley was appointed by Governor Davey during the closing days of his administration. His term of office will expire January 9, 1945. Judge Gregory was a member of the Commission for nearly 12 years, having been appointed in the Spring of 1927 to fill the unexpired term of the late Judge J. D. Clark. Since 1933 he had been chairman of the Commission. J. W. Beall, Lima, is the new chairman. W. T. Blake, East Liverpool, is the third member of the Commission.

Pooled Resources Will Pay Big Dividends

Expansion Program Would Provide Means For Better Postgraduate Activities, Improved Journal, and More Effective Legislative Work

BARNEY J. HEIN, M.D., President

IN the February issue of *The Journal*, I endeavored to give the membership a picture of what the expansion program proposed by The Council for the Ohio State Medical Association would mean to the medical profession of Ohio from the standpoint of public relations and public education.

At this time, let us consider briefly some of the other benefits which will accrue to each and every physician in the state if the House of Delegates in May supports the program proposed by The Council.

Although the State Medical Association has carried on an excellent program of postgraduate education throughout the years, and an especially active one for the past two years, we have only scratched the surface. The possibilities in this field are enormous. This activity is one of the primary purposes of our organization. **We are obligated as an organization to provide our members with opportunities for self-improvement.** A fine way to maintain public confidence is to assure the people of up-to-date medical care, provided by physicians who through postgraduate and refresher courses have kept themselves abreast of progress in the art and science of medicine. **Even present postgraduate programs sponsored by the State Medical Association cannot be carried on effectively under the present budget and it is a certainty that needed expansions in this field cannot be undertaken unless there is an increase in the annual income of the Association.** We must not lose sight of the fact that self-improvement and improvement within our own ranks must keep pace with our public relations. Unless we prove ourselves adequately equipped to cope with health and medical problems we cannot expect the public to be sympathetic to our views on medico-social questions.

We take pride in the fact that our Association has one of the leading medical journals in the country. **Additional improvements could be made in *The Journal* if finances would permit.** We can visualize great possibilities through extending the activities of our Committee on Public Health Education. This committee could, if it had the funds, play a big part in the work of educating the public about the values of preventive services, rendered by practicing physicians, and become a guiding agency in educational programs now carried on by official and non-official public health groups. **We have been lax in this particular field and as a result too many people are looking to those outside the medical profession for advice on preventive services.**

Recent developments have shown that our interest in public affairs and legislative matters must extend beyond the confines of our own state. We must keep our congressmen and national officials informed about the views of the medical profession of Ohio on national questions. Such work will require an increase in the machinery necessary to handle such work efficiently.

There are innumerable other activities and projects which might be mentioned—activities which are absolutely necessary, others which are very desirable. As pointed out in a previous article, as individual physicians we cannot hope to carry on these activities successfully; as a group and by pooling our resources, we can make great progress. **The $2.00 increase in annual dues which The Council has recommended can be met readily by each physician and will produce an aggregate amount which can be put to work yielding dividends in services and benefits which cannot possibly be produced through any other means.**

Proceedings of The Council

Action Taken on Important Legislative Proposals at January 29 Meeting; Progress Reported on Group Medical Service Plans by the Coordinating Committee

A REGULAR meeting of The Council of the Ohio State Medical Association was held on Sunday, January 29, 1939, State Headquarters Office, Columbus, with the following present: President Hein, President-Elect Smith, Past-President Alcorn; Councilors Hogue, Klotz, McNamee, Skipp, Brush, Seiler and Sherburne; Treasurer Beer; Dr. Lowe and Dr. Platter, members of the Committee on Public Relations; Dr. Forman, Editor of *The Journal;* Dr. Upham, Executive Secretary Nelson and Assistant Executive Secretary Saville.

On motion by Dr. Sherburne, seconded by Dr. McNamee and carried, the minutes of the December 3 and 4, 1938, meetings of The Council as published in the January, 1939, issue of *The Journal*, were approved as published.

Membership Statistics—It was announced that the total membership as of January 29, 1939, was 4,527 compared to 4,427 on the same date a year ago, and to 6,128 as of December 31, 1938.

Reports of Councilors—Members of The Council reported on visits to and correspondence with county societies in their respective districts. All the Councilors reported that the general sentiment among the members of their county societies indicated that the proposed expansion program, adopted and approved by The Council at its last meeting (see pages 77-81 of the January, 1939, issue, *The Journal*), would receive the enthusiastic support of the majority of the membership. Also, members of The Council of districts involved in the proposed redistricting plan reported that there seemed to be a general agreement in favor of the plan as adopted by The Council at its last meeting (see January, 1939, issue, *The Journal*, page 71).

Redistricting—In order to officially present the proposed redistricting plan to the House of Delegates at the 1939 Annual Meeting, May 3 and 4, Toledo, The Council, on motion by Dr. Skipp, seconded by Dr. Alcorn and carried, adopted the following resolution to be published in *The Journal* at least one month before the Toledo meeting and then presented to the House of Delegates at that meeting:

"That Sec. 6, Chapter 4, of the By-Laws of the Ohio State Medical Association be amended by striking out the word 'ten' following the word 'establish', making the amended section read as follows:

" 'Sec. 6. Councilor Districts. The House of Delegates shall establish councilor districts. A district society may be organized in any of the districts to meet at such time or times as the society may fix, provided the dates chosen do not fall within a period of two weeks preceding or two weeks following the annual meeting of this Association.

" 'The presidents of the component societies in the several districts shall be vice-presidents of their respective district societies.' "

Should the House of Delegates adopt the above amendments to the By-Laws, The Council may then present the redistricting proposal, which was published in full in the January issue of *The Journal*, pages 82-83, and adopted by The Council at its last meeting.

Annual Meeting—Dr. Sherburne, a member of the Committee on Scientific Work, reported on arrangements to date regarding the 1939 Annual Meeting. The Council, without a record vote, approved the arrangements to date and congratulated that committee on the splendid plans which have been formulated.

REPORT OF THE COMMITTEE ON PUBLIC RELATIONS AND ECONOMICS

Dr. Lowe, chairman, presented a detailed report from the Committee on Public Relations and Economics relating to various legislative proposals. The report, in summary form, was as follows:

Osteopathic Bill—The committee recommended that the Ohio State Medical Association oppose a bill introduced in the General Assembly and sponsored by the Ohio Society of Osteopathic Physicians and Surgeons for the reason that such proposal would not be for the best interests of public health or in line with sound public policy. On motion by Dr. Sherburne, seconded by Dr. McNamee and carried, this recommendation was approved.

Premarriage Examination Bill—A detailed analysis of proposed legislation to require all applicants for a marriage license to submit to a physical examination and to present a physician's certificate stating that such applicant is free from venereal diseases, epilepsy, feeble mindedness, and insanity, was presented by Dr. Lowe. Amendments relative to wording and procedure were presented by the committee for considera-

tion of The Council. On **motion** by Dr. Klotz, seconded by Dr. Smith and **carried**, The Council **approved** in principle this type of legislation, providing the proper procedure and technic is set forth in the act, in line with the recommendations of the Committee on Public Relations and Economics.

Public Health Measure—A proposal sponsored by the Ohio Public Health Association providing for a reorganization in the State Department of Health was discussed at length. Dr. Lowe, for the committee, presented certain changes in the bill and, on **motion** by Dr. Seiler, seconded by Dr. Smith and **carried**, The Council **approved** the recommendation of the committee. The bill had been approved in principle at the last meeting of The Council, (see January, 1939, issue, *The Journal*, pages 68-69).

Changes in Medical Practice Act—A bill supported by the State Medical Board, to bring certain provisions of the Medical Practice Act into conformity with the regulations of the State Medical Board and to permit the board to reject foreign applicants unless the countries from which such applicants come grant equal rights to Ohio physicians, was considered. The recommendation of the Committee on Public Relations and Economics that the Ohio State Medical Association actively support this proposal was **approved** by The Council on **motion** by Dr. Sherburne, seconded by Dr. Seiler and **carried**.

Psychopathic Criminals—A recommendation of the committee that a proposal to permit the commitment of psychopathic criminals to local institutions instead of to state institutions be **disapproved** received a favorable vote of The Council on **motion** by Dr. Sherburne, seconded by Dr. Seiler and **carried**. The report of the committee pointed out that it favored the principle of segregation of such classes of prisoners but believed that such prisoners should be segregated in a state institution or institutions and not committed to local institutions.

Official Adviser—The Committee on Public Relations and Economics recommended that Dr. Sherburne be nominated by The Council as a member of the Advisory Committee on Health and Medical Services for the State Division of Public Assistance, such nomination having been requested by that Division. On **motion** by Dr. Beer, seconded by Dr. Smith and **carried**, Dr. Sherburne was nominated by The Council for this assignment.

Poor Relief—The Executive Secretary presented a detailed report on developments regarding proposed poor relief legislation. It was pointed out that such legislation was not, at this time, in such shape that it could be reviewed by The Council, but that conferences were being held for the purpose of presenting the medical profession's views on such matters. To guide the Committee on Poor Relief in its negotiations on **motion** by Dr. Smith, seconded by Dr. Klotz and **carried**, The Council recommended that the State Medical Association should take the stand that, for the present at least, the administration of medical relief should be left in the hands of state and local welfare departments with centralization of activities in each county, if possible. On **motion** by Dr. Smith, seconded by Dr. Klotz and **carried**, the Executive Secretary was instructed to prepare a bill deleting objectionable wording in Section 3480 of the General Code relating to medical care furnished by townships and municipalities and to have such bill introduced at this session of the Legislature.

On **motion** by Dr. Smith, seconded by Dr. Hogue and **carried**, the report of the Committee on Public Relations and Economics as a whole was **approved**.

ADDITIONAL LEGISLATIVE PROBLEMS

A bill introduced by the Ohio State Nurses' Association to provide for a separate board to examine and license nurses was reviewed in detail. On **motion** by Dr. Sherburne, seconded by Dr. McNamee and **carried**, The Council voted **not to approve** such proposal on the grounds that it is unnecessary and would disrupt the present procedure regarding the education, training, examining and licensing of nurses now carried on under the supervision of the State Medical Board through its Nurses' Examining Committee.

A proposal now pending before the Legislature to establish a commission to study health administration, medical service, health insurance, medical cooperatives, etc., was discussed. On **motion** by Dr. Hogue, seconded by Dr. Smith and **carried**, The Council expressed itself as believing that such proposal would be unnecessary as voluminous data on these questions are now available, and that official health and medical agencies stand ready to cooperate with the Legislature in assembling additional data, if necessary.

REPORT OF COORDINATING COMMITTEE

Dr. Smith, chairman of the Coordinating Committee, presented a detailed report on the meeting of the committee held on the previous evening. By **unanimous vote** ,The Council **adopted** the following motion, presented by Dr. Smith and seconded by Dr. Skipp:

(1) That the Coordinating Committee proceed to perfect a skeleton proposal for group medical service plans, based on an amended plan approved in principle and substance at the meeting of the committee on the previous evening, and, if possible, have such plan in final form for considera-

tion and action by The Council at its next meeting;

(2) That the Coordinating Committee be granted the power to act in preparation and introduction of enabling legislation;

(3) That the Coordinating Committee be authorized to engage competent legal counsel to assist in preparation of the skeleton group medical service plan and the enabling legislation, and that the Committee on Auditing and Appropriations be authorized to approve reasonable costs incurred for such legal services.

MISCELLANEOUS

On motion by Dr. Beer, seconded by Dr. Skipp and carried, the Executive Secretary was designated as statutory agent for the State Association, in compliance with a law requiring all corporations to have such an agent.

At the request of the Executive Secretary, members of The Council consented to file with him names of speakers competent to discuss medical-social questions before lay groups in order to assist the State Headquarters Office in filling requests for speakers from such groups.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Sectional Meeting of American College of Surgeons In Indianapolis, March 22-24

A sectional meeting of the American College of Surgeons for fellows in Illinois, Indiana, Iowa, Michigan and Ohio, will be held at the Claypool Hotel, Indianapolis, Indiana, Wednesday, Thursday and Friday, March 22, 23 and 24. The meeting will consist of operative and non-operative clinics, both in general surgery and surgical specialties; hospital conferences; panel discussions; medical motion pictures; scientific papers; various committee meetings, and a discussion of graduate training for surgery and surgical specialties. There will also be a display of educational and scientific exhibits.

Among the distinguished surgeons who will address the session are the following: Dr. Howard C. Naffziger, San Francisco, president of the American College of Surgeons; Dr. George Crile, Cleveland, chairman of the Board of Regents; Dr. Frank E. Adair, New York, attending surgeon, Memorial Hospital; Dr. Frederic W. Bancroft, associate professor of clinical surgery, Columbia University College of Physicians and Surgeons; and Dr. George H. Gardner, Chicago, assistant professor of gynecology, Northwestern University Medical School.

Dr. Carl H. McCaskey, Indianapolis, is chairman of the Committee on Local Arrangements. Dr. Carl R. Steinke, Akron, is secretary of the Ohio State Executive Committee.

Aid To Needy During 1938 In Nation Is Estimated at $2,995,705,000

Federal, state and local expenditures for aid to the needy in the United States during the year 1938, including earnings of persons certified as in need of relief employed on work projects of the Works Progress Administration, amounted to $2,995,705,000, according to a recent announcement of the Social Security Board This figure does not include administrative expense or earnings of non-certified workers on work programs. Expenditures for 1938 represent an increase of more than 28 per cent over total expenditures of $2,332,769,000, reported for 1937.

The following amounts represent substantially all public aid received by needy persons throughout the nation during the year 1938, except transient aid:

Public assistance to needy aged, needy blind, and dependent children, from Federal, state and local funds under the Social Security Act, and other public assistance of these special types	$ 509,369,000
Earnings of persons certified as in need of relief employed on work projects of:	
(a) the Works Progress Administration	1,622,417,000
(b) the National Youth Administration	55,252,000
(c) other Federal agencies	78,103,000
Earnings of persons enrolled in the Civilian Conservation Corps	230,166,000
Subsistence grants under the Farm Security Administration	22,609,000
General relief in cash and in kind, by states and localities	477,789,000

Opinion on Payment of Physician

A physician rendering medical aid to indigent persons cannot collect for such services from the general fund of the county, but is restricted by general code section 3480 in seeking payment from the township trustees or proper municipal corporation and in the absence of express appointment by the Court of Common Pleas, or in the absence of a contract with the County Commissioners, a physician rendering medical aid to incarcerated persons in a county jail may not receive payment therefor from the general fund of the county, according to an opinion (No. 135) rendered by Attorney General Thomas J. Herbert.

All Physicians Invited

All Ohio physicians are cordially invited to attend the Annual Post-Collegiate Assembly of the Ohio State University College of Medicine to be presented at Columbus, Thursday, Friday and Saturday, March 2, 3 and 4. The complete program was published in the February issue of *The Ohio State Medical Journal*, pages 206-209.

Round-Table Conferences Will Be One New Feature of 1939 Annual Meeting; Attendance To Be Limited

ONE departure from the usual program of Annual Meetings has been arranged by the Committee on Scientific Work for the Ninety-Third Annual Meeting of the Ohio State Medical Association to be held at Commodore Perry Hotel, Wednesday and Thursday, May 3 and 4. This innovation consists of a series of 12 round-table conferences to be presented Wednesday afternoon, May 3, from 1:30 to 3:00 o'clock.

The subjects to be discussed are: Post-Operative Pulmonary Complications; Wound Infections; Value of X-Ray Pelvimetry in Obstetrics; Use of Protamine Zinc Insulin in Diabetes; Treatment of Psychoses Other than Schizophrenia With Metrazol; Management of Asthma; Gastrointestinal Upsets in Infants and Children; Office Use and Abuse of Short Wave Therapy; Industrial Dermatoses; Treatment of Nephritic Emergencies; Modern Treatment of Pneumonia; and Treatment of Abortions.

Physicians of recognized experience in these subjects have been chosen as leaders of the various groups. So that there will be an opportunity for general discussion, ATTENDANCE AT THESE CONFERENCES WILL BE LIMITED. Several weeks prior to the Annual Meeting every member of the State Association will receive a card on which he will be asked to state a preference for the conference he would like to attend. Reservations will be made in the order received, and only those who have reservations will be admitted.

The Committee on Scientific Work is hopeful that these round-table conferences will be of such practical value to those who attend that they can be made a permanent feature of Annual Meeting programs.

Child Health Day, May 1

In accordance with the Congressional Resolution of May 18, 1928, which authorized the President to proclaim May Day as Child Health Day, Monday, May 1, has been designated as Child Health Day for 1939. In sponsoring the observance of this day, the Children's Bureau of the U. S. Department of Labor has adopted the slogan: "The Health of the Child is the Power of the Nation." Suggested objectives are: to bring to the attention of each community the importance of the child's health, development and well-being throughout life, of proper food, rest, exercise, medical care and protection against diseases; the ways of informing parents and others how child health may be safeguarded, and the means whereby such safeguards may be made available for all children. State departments of health and state departments of education throughout the nation have been requested to cooperate in the program.

Obstetrics Refresher Course

A refresher course on obstetrics will be presented by the Bureau of Child Hygiene, State Department of Health, at the Shawhan Hotel, Tiffin, Wednesday, March 15, beginning at 2:30 P.M. The speaker will be Dr. Charles W. Pavey, Columbus, assistant professor of obstetrics, Ohio State University College of Medicine. Physicians of Sandusky, Erie, Huron, Crawford, Wyandot, Hancock, Wood and Seneca counties are invited to the meeting.

Research Grants Available

The Committee on Scientific Research of the American Medical Association invites applications for grants of money to aid in research on problems bearing more or less directly on clinical medicine. Preference is given to requests for moderate amounts to meet specific needs. For application forms and further information, please address the committee at 535 North Dearborn Street, Chicago.

In Our Opinion: Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Developments To Date In Group Medical Service Plans for Ohio

During recent weeks considerable space in the daily press has been devoted to articles regarding the plans of the Ohio State Medical Association and several of its component societies for the inauguration of group medical service programs for the low-income groups.

Naturally, the newspapers have not been interested in certain details and in events leading up to the developments on which the publicity was based. Therefore, a concise summary of events leading up to the publicity which has taken place and description of some of the additional steps which will have to be taken in the immediate future are in order.

Last Fall, The Council of the Ohio State Medical Association authorized President Hein to appoint a special committee to study the general question of what the medical profession of Ohio should do in the way of developing a constructive program to educate the public regarding the views of the medical profession of medico-social problems and to evolve sound methods of distributing medical services to persons who desire to pay for such services but find it difficult to do so without pooling their limited resources.

Subsequently, a committee was appointed, known as the Coordinating Committee. The first action of the committee was to recommend to The Council that it establish a public relations agency within the State Headquarters Office. The Council has approved this suggestion and it will be presented to the House of Delegates in May as a part of the expansion program recommended by The Council.

The second important action of the Coordinating Committee was to set up a sub-committee to study the possibilities of the development of local group medical service plans whereby persons of a certain income status would be given the opportiunity to purchase medical services at stipulated installment payments, control of such plans to be in the hands of the county medical society.

In connection with the study made by the subcommittee, committees of several of the larger county medical societies and academies of medicine started similar studies. General principles and policies were developed by the several groups. In January, the Coordinating Committee reviewed in detail the suggestions developed locally, and at that time approved in substance, a set of principles and working procedures, to be used as a basis for a so-called "model" local group medical service plan. These principles and procedures are now being perfected and will be presented to The Council in the near future for consideration and action.

If approved by The Council, the "model" plan, containing fundamental principles and suggested procedure, will be made available to any county medical society which may wish to develop a plan locally, to be used by that society as a guide for development of the local plan.

Before any local plan can be started, a proposed enabling act, sponsored by the Ohio State Medical Association and now pending in the State Legislature (Senate Bill 104), must be enacted. (See page 319 for description of bill).

These points should be kept in mind:

1. A so-called "model" group medical service plan has not been whipped into final shape and has not been adopted by The Council, although early action may be anticipated.

2. Whatever "model" plan is adopted will be simply that. In other words, the plan will be drafted by the State Association merely as a guide to local medical societies wishing to develop a plan within their jurisdiction. No group medical service plan to operate throughout the entire state, or to be operated by the State Association, will be established, although it is quite likely that identical or similar local plans may be worked out from the "model" procedure evolved by the State Association.

3. No effort will be made by the State Association to force any county medical society to start and operate a group medical service plan. However, should a county medical society desire to do so, the help and facilities of the State Association will be made available to it.

4. Enabling legislation will be necessary before local plans can be started.

Several other of the larger state medical associations, notably Michigan, California, and New York, are developing similar group medical service programs and are sponsoring enabling legislation.

It is to the credit of the Coordinating Committee and The Council that they have moved cautiously so far. An effort has been made to avoid mistakes and to keep developments on a sound basis. None should be optimistic enough to believe that group medical service plans can be developed or inaugurated over night. This is a new venture on the part of the medical profession in Ohio and solid foundations must be laid.

If plans are developed in this manner, sound programs are possible, with benefits accruing to the public and to the medical profession.

How the public may react to this move on the part of the profession to try to help a portion of the public solve the financial problem of providing themselves with medical care is indicated in the following editorial published in the Scripps-Howard newspapers, regarding the enabling acts being sponsored by the Ohio State Medical Association for group medical service plans and the Ohio Hospital Association for group hospital service plans:

"Two bills now before the Ohio Senate deserve to be passed as progressive and forward steps in the solution of the problems involved in the cost of medical care.

"The hospital bill, introduced by Senator Pollock of Stark county, and reported favorably by the Senate Insurance Committee, would put hospitalization service associations under the jurisdiction of the state department of insurance, and enable them to operate across county lines.

"Thus, organized hospital service associations could extend their operation to neighboring counties. As things now stand, an industrial county containing a large city can operate such a plan successfully, whereas a county which is chiefly rural is at a serious disadvantage.

"The medical bill, introduced by Senator Kane of Cincinnati, is an enabling act to make possible medical plans along the lines of the hospitalization plans. It would clear the path for such plans as the one now under discussion by the Cleveland Academy of Medicine for an insurance plan to pay the cost of medical bills during periods of hospitalization.

"At such time as the Cleveland, or other academies in the state, agree upon plans of this type, the legislative path for their operation should be clear.

"There has been considerable agitation for the entrance of the government into the medical picture. Many people, however, have felt that the leadership should be taken by the medical profession itself.

"The Cleveland Academy of Medicine deserves to be commended for tackling this difficult and complex problem, and beginning the formulation of a plan which may lead to its solution."

Things Not As Quiet Along the Potomac As They Seem to Be

Following is an article published in a recent issue of the *Jackson County (Mo.) Medical Society Bulletin*, which so far as we are able to ascertain has not been denied, either by the physician mentioned or by Group Health Association, Inc., of Washington, D. C.:

"The *Baltimore Sun* of January 11 last reports from its Washington Bureau that Group Health Association, Inc., has lost the services of its director of the department of internal medicine.

"Dr. Richard H. Price is quoted as saying that he was leaving the Association because it provided 'unsatisfactory medical service.' He is reported to have claimed that some members were required to wait as long as a week to see a doctor when they should have been seen at once, and that in general members are 'treated like a herd of sheep,' instead of receiving the sort of service available to private patients.

"Other complaints were that too many physicians were often sent to see one patient, rather than to arrange for one man to see the illness through. Many times the second and third doctors knew nothing of the case history. It was also stated that there was unnecessary delay before important surgery could be performed.

"All charges were denied by the president of the association.

"We do not know Dr. Price who is retiring after over a year of service with the organization and we do not know whether the charges are exaggerated or purely trumped up. We do not know whether personal jealousy or hatreds might be responsible for one to leave such employ. But here are the first whisperings of dissention behind the lines of the opposition and we would like to know so very much more about it."

Selection of Dr. Markwith a Real Merit Appointment

Those who are familiar with the way the Summit County Health Department has been operated and are acquainted with Dr. R. H. Markwith who served that department in the capacity of health commissioner for a period of 16 years fully realize why Governor Bricker has selected Dr. Markwith for the position of State Director of Health.

Under the supervision of Dr. Markwith, the Summit County Health Department won recognition throughout Ohio as one of the best-managed, best-equipped and most efficient local health units in the state. From the standpoint of training and experience, Dr. Markwith ranks among the leaders in the field of public health administration in Ohio.

The appointment of Dr. Markwith may be regarded as a merit appointment not only because he deserves and is qualified for the position but also because, in making the selection, Governor Bricker gave competence and qualifications primary consideration. The Governor is to be congratulated for recognizing that a man's record for being able to do a job well should count more than his ability as a good party worker. Dr. Markwith should be commended for leaving a department which has gained an enviable record under his direction, to take on added responsibilities and obligations—probably some headaches—when he could easily have refused the appointment and avoided the more arduous duties which his new position entails.

As a member of the Summit County Medical Society, Dr. Markwith always has taken an active

and keen interest in the affairs of organized medicine. He has served on important committees of that society and has taken an active interest in the activities of the State Medical Association. Fortunately he can look at public health work from the viewpoint of the physician in private practice as well as from the viewpoint of the health administrator. This attribute should be mighty helpful to him during his tenure of office.

We anticipate that Dr. Markwith will look to the Ohio State Medical Association for advice and guidance and will expect (and rightly so) to receive cooperation on matters deserving the support of the medical profession of Ohio. We are confident that he will receive the help he needs, and must have, from the officials and committees of the State Association. The same degree of active cooperation should be forthcoming from the rank and file of the medical profession throughout the state.

Some Late News From the Trenches At Washington

"What's the situation in Washington"? asks the busy physician, meaning we assume developments regarding the gigantic national health program which has been very much in the picture since mid-Summer of 1938.

Frankly, the situation is anybody's guess—at least the final outcome. Nevertheless there appear to be some rather definite developments indicating that the present United States Congress will be ultra-conservative in anything which it may do to expand the power and authority of the Federal Government on medical and public health matters.

The above prediction is based on recent statements made by several veteran Washington observers with a reputation for knowing whereof they speak before doing so. Let's examine a few of these observations.

One very reliable commentator stated on January 28:

"Administration is not planning a big far-reaching, new health plan for passage this session of Congress. Senator Wagner will introduce a bill, which is intended merely as basis for study this session, **getting ready to make broad health plan a major issue in the next session.** Some additional appropriations for health work in the states probably will be voted this year, in excess of budget estimates."

Here is what another responsible reporter had to say on the health program situation:

"Senator Wagner is the key congressional figure in this picture. His bill to implement the program is now receiving the finishing touches and it will be introduced shortly. State legislation probably will be necessary in order to permit states to receive the full benefits of the federal program. . . . **A national compulsory health insurance system will not be proposed in Wagner's bill but rather the decision as to whether or not they wish to establish compulsory health insurance systems will be passed on to the states.** Federal aid and encouragement will be provided for the type of health program which the state elects. Less controversial are provisions for an expansion of public health and maternal and child health services, appropriations for hospitals and medical care for needy individuals."

This same commentator on a later date, made the following observation:

"Administrative difficulties still continue to delay completion of Wagner's bill. It is possible the jurisdictional problem might be solved, legislatively at least, by vesting administrative responsibility for the entire program in a Department of Welfare which would include the United States Public Health Service, the Social Security Board, the Children's Bureau, and such other Federal agencies as might be transferred to the department by the President, perhaps with the approval of Congress."

(Up to the time the March issue of *The Journal* went to press, the anticipated Wagner bill **had not been introduced).**

Still another widely-read columnist had this to say:

"Mr. Roosevelt's health program has been caught in a legislative draft. Congressional doctors laid it quietly on their committee tables, opened both windows and the door, tip-toed out without saying a word. The chill imposed upon it will undoubtedly give it a cold which will incapacitate it for this session of Congress—and possibly permanently. At any rate that's the current plan. Privately a good many congressmen hope it will develop nothing less trivial than permanent double pneumonia.

"Not that the legislators would mind spending $850,000,000 (ultimate annual cost) if they had it. Not that they lack sympathy and a desire to aid anyone who is ill. They merely are skeptical about adding Federal contributions to a budget too weak to stand the burdens already imposed on it; reluctant to create a vast new Federal responsibility for illness, including maternity problems. Particularly they know that while the Federal government with its vast powers, can inflate the money to pay for health agencies and hospitals by some hocus pocus or other, the states, lacking the power to create money, cannot in many cases make the necessary contribution to support the program.

"The day may come when the Federal government will add to its newly assumed duties by caring for all the sick including those with sore thumbs—but not this session and probably not next.

"The reluctant legislators do not expect to incur White House displeasure for taking the realistic viewpoint. They noted the program was submitted for 'study'. Nowhere, either in the President's message, or in the report of his Interdepartmental Committee, was a recommendation for an appropriation.

"Also the report started out by saying: 'The general level of health in the United States is higher than at any other time in its history'. And

it might have added 'or in the history of any other nation in history' ".

For fear the above may create too much optimism generally, may we point out again that the above observations merely are observations of individuals and they may be talking through their hats. Also, may we emphasize that what does not take place now, next month or during this session of Congress, may happen next year or in 1941, and that **there is a possibility that the battle grounds may be shifted from Washington to the various states—including Ohio.** To be prepared for any contingency and emergency is the responsibility of the medical profession everywhere, and **the sooner the public relations machinery of the profession is set into high gear, the better off it will be when the final show-down comes.**

On the Firing Line

Physicians all over the state are out on the firing line presenting to lay groups the arguments of the medical profession against the socialization of medicine. Recent addresses include: Dr. Walter G. Stern, Cleveland—Junior League of Sandusky; Dr. M. K. Marshall, Findlay—Nurses' Alumnae Association; Dr. J. W. Schoolnic, East Liverpool—Rotary Club; Dr. John A. Fraser, East Liverpool—Lions Club; Dr. Wm. M. Skipp, Youngstown—Massillon Republican Club, Massillon Rotary Club; Dr. D. W. Hogue, Springfield—Urbana Federation of Women's Clubs; Dr. George A. Woodhouse, Pleasant Hill—Piqua Chapter of the American Association of University Women; Dr. Carl W. Sawyer, Marion—Rotary Club; Dr. Jonathan Forman, Columbus—Sociology students at Ohio State University and the Community Forum, Springfield; Dr. F. M. Wiseley and Dr. Don B. Biggs, Findlay—Hancock County Ministerial Association; Drs. Walter K. Stewart, Claude B. Norris, Paul J. Fuzy and Wm. M. Skipp, Youngstown—Social Service Club. A number of these speakers distributed the leaflet, "What Every Citizen of Ohio Should Know", to members of their audience.

Hospital Executive Dead

Byron W. Stewart, superintendent of Youngstown Hospital Association since 1921, and well-known throughout the medical profession in Ohio, died in Cleveland, January 25, following a heart attack. Mr. Stewart was a former secretary and president of the Ohio Hospital Association. He was also active in the American Hospital Association and the American Hospital Administrators' Association.

Cincinnati—Officers of the Cincinnati Society of Anesthetists are: Dr. Abe L. Schwartz, president; Dr. Millard Wallenstein, vice-president, and Dr. Ray L. Hilsinger, secretary-treasurer.

Toledo Committees Completing Arrangements For State Association Annual Meeting, May 3 and 4

Under the general chairmanship of Dr. A. A. Brindley, committees of The Toledo Academy of Medicine are perfecting local arrangements for the Ninety-Third Annual Meeting of the Ohio State Medical Association, which will be held at the Commodore Perry Hotel, Toledo, Wednesday and Thursday, May 3 and 4.

Personnel of the various committees follows:

Reception—Dr. A. L. Steinfeld, chairman; Drs. John L. Stifel, E. B. Gillette, Benj. H. Carroll, C. W. Waggoner, William G. Gardiner, C. D. Selby, A. H. Schade, Lewis F. Smead, Thos. F. Heatley, Ralph P. Daniells, Luette H. Kuhlman, John R. Davis, Thomas M. Crinnion, E. W. Doherty, Charles Lukens and Fred M. Douglass.

Annual Banquet—Dr. L. P. Dolan, chairman; Drs. Harry M. Scott, Karl D. Figley, S. H. Patterson and Wm. A. Neill.

Halls and Meeting Places—Dr. L. D. Miller, chairman; Drs. B. G. Shaffer, Robert H. Elrod, T. F. Kiess, M. W. Diethelm and J. A. Magoun.

Hobby Exhibit—Dr. Geo. P. Hohly, chairman; Drs. Thomas L. Ramsey and John T. Murphy.

Projection Apparatus—Dr. C. E. Hufford, chairman; Drs. M. E. Goodrich and Dalton Kahn.

Entertainment for Women Guests—Mrs. Carll S. Mundy, chairman; Mrs. A. A. Brindley, Mrs. Thomas H. Brown, Mrs. Richard A. Mills, Mrs. John R. Davis, Mrs. L. D. Miller, Mrs. Edward J. McCormick, Mrs. C. E. Hufford, Mrs. Karl D. Figley, Mrs. Glenn H. Reams, Mrs. F. B. McNierney and Mrs. Louis A. Levison.

Coming Meetings

Ohio State Medical Association, Toledo, May 3-4.

American Medical Association, St. Louis, May 15-19.

American Association of Anatomists, Boston, April 6-8.

American Association of Pathologists and Bacteriologists, Richmond, Va., April 6-7.

American Association for the Study of Goiter, Cincinnati, May 22-24.

American College of Physicians, New Orleans, March 27-31.

American Congress of Obstetrics and Gynecology. Cleveland, Sept. 11-15.

American Society of Anesthetists, New York, April 14.

International College of Surgeons, New York, May 22-24.

National Gastroenterological Association, New York, June 1-2.

Have You Made Your Hotel Reservations for the 1939 Annual Meeting, Toledo? If Not, Do So Immediately

HAVE you made hotel reservations for the Ninety-Third Annual Meeting of the Ohio State Medical Association, which will be held at Toledo, Wednesday and Thursday, May 3 and 4? **If not, you should do so immediately.**

The Commodore Perry Hotel has been designated as the Headquarters Hotel. Most of the scientific sessions and the meetings of the House of Delegates will be held there. It will also house the Registration Headquarters, the Technical Exhibit, and the round-table conferences. One or more of the section meetings and some of the round-table conferences may be held at the Hotel Secor, located directly across the street from the Commodore Perry Hotel.

Assure yourself of the type of accommodations you desire by making requests for reservations without further delay. Send your request **directly to the manager of the hotel selected.**

Following is a list of Toledo hotels and their room rates:

NAME AND LOCATION	No. of Rooms	Single	Double	Double Twin Beds	Suites
COMMODORE PERRY Jefferson Ave. and Superior St.	500	$3.00–5.50	$4.50–7.00	$5.00–8.00	$10.00 and 14.00
NEW SECOR Jefferson Ave. and Superior St.	250	$2.50–4.00	$4.00–5.50	$5.00–6.00	$10.00 and up
FORT MEIGS 222 St. Clair St.	250	$2.00–3.00	$3.00–4.00	$4.50–5.00	$8.00 and up
WALDORF Summit St. & Madison	500	$2.00–2.50	$3.50–4.00	$4.00–4.50	$8.00 and up
WILLARD St. Clair St. and Adams	125	$2.00–3.50	$3.50–5.00	$4.00–5.50	
MELROSE Jefferson Ave. and Superior St.	80	$1.50–2.00	$2.50–3.00	$3.00–3.50	
LORRAINE Jefferson Ave. & 12th St.	150	$2.00–3.00	$3.00–3.50	$3.50–4.00	$5.00 and 7.00
ARGONNE 321 Twelfth St.	100	$1.50 and up	$2.50 and up		
HILLCREST Madison Ave. & 16th St.	600	$2.50 and up	$3.50 and up	Suites $3.00 sgl. $4.00 sgl.	 $5.00 dbl. $6.00 dbl.

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager ..... Hotel, Toledo, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, May 3-4, 1939, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price: .....

☐ Twin Bed Room with bath ☐ Suite

Arriving May..... at..... A. M. ..... P.M.

PLEASE VERIFY MY RESERVATION.

Name .....

Address .....

.....

Review of Legislative Session to Date; Numerous Important Medical and Health Bills Pending Before Assembly

AS this issue of *The Journal*, went to press, the 93rd session of the Ohio General Assembly was in full swing. Scores of bills of vital, or casual, interest to members of the medical profession have been introduced. Indications are that the representatives of the Ohio State Medical Association will be confronted with several extremely busy months before the General Assembly adjourns. Members of the Headquarters Office staff, assisted by members of the Committee on Public Relations and the Sub-Committee on Legislation, are practically "living with" the Legislature, following and presenting the views of the Association on all proposals. Fine work is being done in the counties by the local legislative committeemen and committees. Obviously, this is where the real work must be done through interviews and conferences with members of the General Assembly over the weekends.

In order that the membership of the State Association generally may be acquainted with some of the important pieces of legislation which have been proposed and the policies of the Association concerning them, the following review is presented:

THIS BILL MUST PASS

Group Medical Service Plans—Senate Bill 104, introduced for the Ohio State Medical Association by Senator Kane, Cincinnati. This is one of the most important proposals pending before the General Assembly, so far as the medical profession is concerned. It is a proposed enabling act to permit the organization of non-profit corporations by county medical societies for the furnishing of medical and surgical services to groups of low-wage earners on a prepayment basis. As soon as this bill becomes a law, academies of medicine and county medical societies may organize group medical service plans and contract with low-wage groups for the furnishing of medical services. Such plans now are being considered by the Cleveland, Toledo and Cincinnati academies, the Summit County Medical Society, Mahoning County Medical Society, and several other of the larger county medical societies. Through a provision providing such a corporation cannot operate in a county if a protest is filed by 50 per cent of the licensed physicians of the county, control of such service plans would be retained by the county medical society. The bill provides for supervision and regulation by the State Superintendent of Insurance under rules and regulations set forth in the proposal. Conferences which have been held indicate that this bill in final form will have the approval of the Superintendent of Insurance, the representatives of the insurance companies and the medical profession. At the proper time, local legislative committeemen will be requested to ask their respective legislators to support this bill. Enabling legislation of this kind will be absolutely necessary before any county medical societies can take steps to start a group medical service plan which would provide medical care insurance on a voluntary basis. This bill needs the active support of all members of the State Association. A similar proposal, Senate Bill 181, has been introduced for the Ohio Hospital Association relating to group hospital service plans.

ANOTHER IMPORTANT PROPOSAL

Changes in Medical Practice Act—Senate Bill 97, introduced by Senator (Dr.) Phillips of Athens, has the enthusiastic support of the State Medical Board and the Ohio State Medical Association. It should have the support of all members. The proposal contains the following provisions: (1) Amends the act to require by statute that an applicant for a license to practice medicine or surgery must have had at least two years of pre-medical collegiate work in an approved college or university. The statute now requires only high school graduation but for the past 20 years all applicants have been required to have at least two years of pre-medical collegiate work because only applicants from approved medical schools have been admitted to the examinations and all approved schools require all applicants for admission to the school to have at least two years of collegiate work. This is merely a corrective provision, bringing the statutes into conformity with the regulations of the board. (2) Provides that the board may refuse to admit to its examinations an applicant holding a diploma or license from a foreign country unless the country issuing such diploma or license extends a like privilege to Ohio physicians. This provision would provide strict regulation over the entrance of foreign graduates to the Ohio examinations. (3) Grants the board the right to refuse to license without examination a physician licensed by another state unless such applicant meets the educational requirements of the Ohio Medical Practice Act. (4) Provides that fines for convictions shall be split 50-50 between board and a county or city in which the offense was committed. This requirement is intended to stimulate prosecutions locally.

A PROPOSAL WITH MUCH MERIT

Reorganization of State Health Department—House Bill 301, introduced by Dr. LeFever, repre-

sentative from Athens, was drafted by the Ohio Public Health Association and has the official approval and active support of the Ohio State Medical Association. Some of the pertinent provisions of the measure are as follows: It provides a five-year term for the State Director of Health, giving continuity to that office and making that office more attractive for well-qualified physicians who have specialized in public health administration. It increases the membership of the Public Health Council from four to six, three of whom must be physicians. It gives more power and authority to the Public Health Council. The bill provides that the Governor shall appoint the director from a list of at least five doctors of medicine recommended by the Public Health Council. It states that the director can be dismissed only for incompetence or gross neglect of duty by the Governor, upon recommendation of the Public Health Council and after a proper hearing. This is not so-called "ripper" legislation, but a constructive proposal which has been discussed many times over a period of years. The present bill was drafted after numerous conferences on the part of committees of the two Associations named above and others vitally interested in this subject.

EXCELLENT CORRECTIVE BILL

Medical Care of the Poor—House Bill 273, introduced jointly by Representative Betts, Findlay, and Representative Radcliff, Circleville, has the active support and approval of the Ohio State Medical Association. It would amend Section 3480 of the General Code, the troublesome section relating to the furnishing of medical care by cities and townships and which has given these subdivisions the right to determine themselves whether a physician's bill is "just and reasonable", giving the physician no recourse to the courts to collect his bill in case of dispute. The Betts-Radcliffe bill strikes out of the present Section 3480 the words "such amount as such trustees or proper officers determine to be just and reasonable" and simply provides that cities and townships shall pay "a just and reasonable amount". If this bill is enacted, it will give a physician the right to appeal to the courts in a controversy over a fee bill and permit the court to decide whether the fee bill was just and reasonable. An act like this will be of great assistance to physicians taking care of the poor of a township or city and should encourage cooperation between city officials and township trustees and the medical profession in the county, especially with respect to payments for medical services.

SOME BAD PROPOSALS

Osteopathic Proposals—House Bill 72, by Cory of Tiffin, has been indefinitely postponed (killed) by the House Health Committee. This bill would have made two osteopaths members of the State Medical Board and given osteopaths of the future and those now in practice the right to engage in the unrestricted practice of medicine merely by taking examinations in materia medica and therapeutics given by the osteopathic examining committee, which committee, also, would have been given the right to rate osteopathic schools, instead of the State Medical Board.

On the final day for introduction of bills in the House, Mr. Cory introduced another osteopathic bill—House Bill 512. This proposal—ridiculous to say the least—provides that the chairman of the osteopathic examining committee should automatically become a member of the State Medical Board. The osteopathic examining committee is picked by the Board from a list of nominees presented by the osteopathic society. In other words, under this bill the osteopathic society would in effect be selecting the proposed osteopathic member of the Board. Members of the Board at present are appointed by the Governor with the advice and consent of the Senate. The principle of the measure as well as the procedure is faulty as osteopaths are not qualified to be members of the State Medical Board. This bill should—probably will—be killed.

Christian Science Perennial—House Bill 392, introduced by Stokes of Fairfield County, is the perennial Christian Science Bill—a proposal to exempt Christian Science practitioners as well as all faith healers from the provisions of the Medical Practice Act. The dangers of this kind of legislation to public health are well known to all members of the State Medical Association. The bill will be opposed on that ground.

POLICY ON NURSES' BILL

Separate Nurses' Licensing Board—House Bill 188, introduced by Representative Deddens, Cincinnati, would provide a separate board to examine and license nurses. At present, the examining and licensing of nurses is vested in the State Medical Board, through its nurses' examining committee. The Council of the Ohio State Medical Association has officially refused to support this proposal, based on the following reasons: (1) A separate board is unnecessary as the examining and licensing of nurses is being handled in a competent and satisfactory manner by the State Medical Board; (2) the work could not be handled as economically as under the present set-up; (3) because of the close connection between nurse education and medical education and the overlapping of various courses, supervision should be under the Medical Board; (4) general objection to separate boards for examining and licensing of persons having direct contact with sick and disabled.

Commission to Study Medical Care, Public Health, etc.—House Bill 171, introduced by Rep-

resentative Dworkin, Cleveland, proposes the appointment of a commission of six members of the General Assembly and three citizens to "proceed with all dispatch in the study of all laws and acts concerning public health, organization of group medical service, compulsory health insurance, cooperation between groups and associations and agencies for the furnishing of medical and hospitalization services, and all other factors concerning and affecting the social problem of the availability of medical care and facilities to the people of Ohio".

This commission would have the power to examine witnesses; subpoena records, documents, files, etc.; and to visit other states to secure data. The proposal provides that "the commission shall make a study of and recommend legislation for providing for the extension of basic public health services, the coordination of medical services furnished by the state and by the local communities, and the reorganization of the department of health, as may be most beneficial and proper for the purpose herein set forth". A deadline of July 1, 1939, for the report is established and it is recommended that the commission be allowed the sum of $5,000 for expenses.

The Council of the State Association in reviewing this bill found no valid reason for the appointment of such a commission. Voluminous data have been assembled from many sources on the subjects enumerated and such data are available to and can be obtained by the Ohio Legislature and individual legislators on request. The Council believes the proposed commission could accomplish little. Legislators will be informed that information and material in possession of the State Medical Association will be made available to them at any time on request and that the Association stands ready at all times to assist any person or agency interested in evolving sound methods of improving the health of Ohio's citizens and making medical services more readily available to all.

PREMARRIAGE EXAM PROPOSAL

Premarriage Physical Examination—House Bill 268, introduced by Mr. Marshall, Columbus, is a bill drafted by the Commission on Marriage and Divorce. It recodifies the marriage and divorce laws and sets up some new provisions. One of these is a requirement that all applicants for a marriage license must present a physician's certificate to the effect that the applicant, in the opinion of the physician and after proper examination, is free from venereal diseases in their communicable stages, epilepsy, feeblemindedness and insanity. It is similar to laws which have been enacted in a score of states. Some of the wording of the bill should be slightly changed in order to make the bill, if enacted, more workable and satisfactory. Suggestions relative to wording, which have been approved by The Council of the Ohio State Medical Association, will be presented to the legislative committee which hears this proposal. The chief interest of this Association will be to protect the rights of physicians and to have the bill in final form in such shape that it will be workable and that the proper procedure can be carried out.

Commitment of Mentally Deficient Criminals—Senate Bill 9, Senator Ascherman, Cleveland, would permit local courts to commit mentally deficient and psychopathic criminals to local institutions instead of to state penal institutions. The committee which heard the bill placed an amendment in the bill which states: "If, in the opinion of the State Department of Public Welfare, adequate facilities are not available, such department may reject such commitment in which event the applicable penal sentence shall apply". In other words, this gives the State Department of Public Welfare a check on such commitments and a method of preventing abuses. The amendment, partially at least, eliminates objections which were raised by the Ohio State Medical Association.

POOR RELIEF DEVELOPMENTS

Permanent Relief Legislation—Little progress has been made to date with respect to permanent relief. A joint committee of the House and Senate is to be appointed to work out a permanent relief act for 1939 and 1940, providing for state aid to local subdivisions. The State Medical Association will request, as in the past, that provision be made for the use of state funds for medical care. Strong movements are under way to bring about the centralization of all relief activities, including medical, dental, and nursing services, hospitalization, and the furnishing of medicines and appliances, on a county-wide basis. A bill to establish a county welfare department in each county has been introduced and efforts will be made to vest in such department the administration of all relief activities of the county. Also, a bill has been introduced to vest in the State Department of Welfare the authority to administer all state funds appropriated to aid the various counties in relief activities. Developments on relief are being watched closely by committees of the State Medical Association, which favors county centralization, to see that proper provision is made for medical services and the allied services mentioned above. Several weeks ago the General Assembly enacted an emergency relief act, providing state funds for temporary needs of cities and counties.

MISCELLANEOUS MEASURES

Miscellaneous—In addition to the above important measures, committees of the State Medical Association are watching carefully numerous

miscellaneous proposals, taxation bills, and Workmen's Compensation measures. A few of these other bills are as follows:

House Bill 103—To provide that several townships may unite, on approval of voters, to build and maintain a general hospital.

House Bill 213—To provide that courts may accept as evidence blood tests in paternity cases.

House Bill 37—To provide a state allowance for old age pensioners for hospital and surgical services, appropriation to come from general revenue fund of state.

House Bill 52—To provide a commission to continue study of needs and relief of visual and physically handicapped.

House Bill 78—To establish a Bureau of Aid for Physically Handicapped and provide approximately $24,000,000 for such aid.

Senate Bill 134—Amending the optometry laws, placing restrictions on advertising, etc.

Senate Bill 140—Correcting the laws relating to commitment of insane and feeble-minded.

House Bill 565 and House Bill 627—Providing for sterilization of feeble-minded and epileptic.

House Bill 659—Recodification of tuberculosis hospital laws.

Approximately 25,000 copies of the leaflet "What Every Citizen of Ohio Should Know" have been sent to Ohio physicians who requested copies for their waiting rooms and for distribution to their patients. Additional requests are being received daily. If you want a supply—and you should—write the State Headquarters Office, 1005 Hartman Theater Building, Columbus. There is no charge.

Increase in Admissions to Mental Disease Hospitals Forecast

Current incidence rates indicate that one of every 20 persons born in 1938 will be committed to a mental hospital some time during his life span.

Because of the increasing proportion of the population in the older age groups, an increase in the number of admissions to mental hospitals is to be expected in the future, since rates of mental disease are highest in the older age brackets.

Since there is no sharp line of demarcation between normality and abnormality, it is practically impossible to determine whether the relative number of persons with mental disease is increasing.

Fundamentally, even though there is a definite physical basis for many mental disorders, mental disease—or insanity, as it is popularly called—is a cultural concept, and varies from one group to another. In some situations the mentally deranged have become soothsayers, medicine men, prophets, or leaders; in other situations the same persons would be incarcerated.

These conclusions have been developed from a comprehensive study of recent data by Dr. Harold F. Dorn, statistician, United States Public Health Service. They are discussed by him in a paper, "The Incidence and Future Expectancy of Mental Disease", in a recent issue of *Public Health Reports.*

To a certain extent, the increase in the number of first admissions to mental hospitals merely reflects an increase in hospital facilities, Dr. Dorn pointed out. In order to eliminate this factor in so far as it was possible, the data used in this study were the number of first admissions to mental hospitals in Massachusetts, New York, and Illinois where facilities have been fairly adequate for several years. In general, these data do not support the contention that the incidence of mental disorders had been rapidly increasing.

This does not mean, however, that the public burden of caring for persons with mental disease has not been increasing. The average number of patients in State hospitals increased 40 per cent (from 248,852 to 347,620) between 1926 and 1935. But, rather, it means that most of the increase may be attributed to increase in the expectation of life, an increasing proportion of old people in the population, increasing urbanization, and other environmental factors. As the standards of care and treatment are raised, the total cost will increase although there is no increase in the incidence of the disease. It is estimated that the current annual cost of hospitalized patients alone is between $150,000,000 and $200,000,000, and that these patients occupy 47 per cent of the total number of hospital beds.

It is gradually becoming accepted, according to Dr. Dorn, that mental aberration is simply a form of illness which may often be cured or alleviated by suitable care and treatment. Commitment to a hospital is no longer universally regarded with the same horror as formerly.

Physicians Married

Recent marriages of Ohio physicians include the following: Miss Elizabeth C. Hart and Dr. John S. Goldcamp, Youngstown; Miss Alberta Grosvenor and Dr. C. L. Critchfield, Columbus; Miss Mary Lou Johnson and Dr. Calvin G. Jackson, Kenton; Miss Shirley Burrows and Dr. Ross M. Zeller, Greenville; Miss Venner I. Davis and Dr. Lloyd F. Zacharias, Cincinnati.

Ohio's Death Rate During 1938 Lowest On Record For State, Analysis of Provisional Data Indicates

THE death rate in Ohio for the year 1938 will probably be the lowest ever recorded in the state since the establishment of death registration on December 20, 1908, according to information furnished Dr. R. H. Markwith, State Director of Health, by the Division of Vital Statistics of the State Department of Health.

During the year 1938 the death rate was 10.11 per 1,000 population (according to the provisional data) as compared with a rate of 11.02 for the complete tabulation in 1937—a decrease of 5,749 deaths or 16 fewer each day. The lowest death rate ever recorded previous to this year was during 1933 when it was 10.5.

The crude death rate for 1938 was 26 per cent per 1,000 population lower than for 1910. The greatest reduction in any age group was found under one year of age, as the infant mortality was 60 per cent less (per 1,000 live births) in 1938 than in 1910, with only 5,161 infant deaths in 1938 as compared with 11,463 during 1910.

If in 1938 the death rate for 1910 had prevailed, there would have been 100,843 deaths in the state as compared with 77,431 for the year 1938, a saving of 23,412 men, women and children, and from a study of the causes where the greatest reductions have been made, it is evident that medical science and public health have worked together in reducing the death rate.

Among the causes of death in the infectious and parasitic diseases, measles and tularemia were the only diseases to show an increase in the number of deaths during 1938—26 more from measles and nine more from tularemia. Other causes of death showing an increase were: Diabetes, cerebral hemorrhage, nephritis and suicide.

Tabulated below are the principal causes of death, with rates per 100,000 population for the provisional data for 1938 as compared with 1937:

	No. 1937	No. 1938	Rate 1937	Rate 1938
Typhoid fever	104	56	1.43	.88
Smallpox	2	0	.03	.00
Measles	102	176	1.40	2.42
Scarlet fever	128	83	1.76	1.24
Whooping cough	290	124	3.98	1.71
Diphtheria	104	92	1.43	1.35
Influenza	2039	764	28.01	10.37
Acute anterior poliomyelitis	56	17	.77	.23
Lethargic encephalitis	61	24	.84	.33
Epidemic cerebrospinal meningitis	125	48	1.72	.66
Rabies	5	3	.07	.04
Tuberculosis (all forms)	3347	3090	45.99	42.07
Malaria	7	2	.10	.03
Tularemia	10	19	.14	.27
Cancer (all forms)	8973	8738	122.79	129.67
Diabetes	1820	1869	25.01	26.49
Cerebral hemorrhage	6648	7134	91.34	96.88
Diseases of the heart	19216	18956	264.03	269.52
Pneumonia (all forms)	5784	4165	79.49	56.61
Diseases of the digestive system	4695	3903	64.51	54.10
Diarrhea and enteritis (under 2 years)	557	464	7.65	6.30
Nephritis	5043	5175	69.29	64.07
The puerperal state	505	425	6.94	5.77
Malformation and diseases peculiar to early infancy	3162	3070	42.77	41.69
Suicide	1096	1243	15.06	16.88
Homicide	383	336	5.26	4.56
Conflagration	75	72	1.03	.98
Burns (conflagration ex.)	290	264	3.98	3.59
Drowning	261	234	3.59	3.18
Accidental falls	1873	1728	25.64	23.48
Railroad accidents	395	337	5.43	4.58
Streetcar accidents	56	45	.76	.61
Automobile accidents	2458	1746	33.77	23.71
All other accidents	1256	1496	17.25	20.43
Total accidents	6664	5688	91.56	77.36
All other causes	9811	8533	134.60	115.88
Grand Total	80180	74431	1101.67	1010.77

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. Jack W. Arnold, Bucyrus; Dr. Rea Bailey, Cheviot; Dr. W. A. LaNeave, Jr., Peebles; Dr. A. J. Mastropaolo, Bethel; Dr. J. Widrich, Cadiz; Dr. James A. Talbot, Geneva.

The American Social Hygiene Association has awarded the 1939 William Freeman Snow Medal to Dr. Thomas Parran, surgeon general, United States Public Health Service "for his great contribution to the health and happiness of the American people through his persistent efforts against syphilis and the conditions which favor its spread".

Award For Thyroid Gland Essay

The American Association for the Study of Goiter again offers the Van Meter Prize Award of $300 and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the Association which will be held in Cincinnati, on May 22-24, 1939.

The competing essays may cover either clinical or research investigations; should not exceed 3,000 words in length; must be presented in English; and a typewritten double spaced copy sent to the corresponding secretary, Dr. W. Blair Mosser, 133 Biddle Street, Kane, Pa., not later than April 15, 1939.

Do You Know - - -

At a recent meeting of sociology students at Ohio State University, Dr. A. Henry Dunn, Columbus, advocated the complete socialization of medicine through governmental subsidies, and Dr. Jonathan Forman pointed out the dangers of such a system, urging instead the adoption of group medical service plans sponsored by the medical profession.

* * *

John R. Mannix has resigned as assistant director of University Hospitals, Cleveland, to become director of the Group Hospitalization Plan for the State of Michigan.

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In recognition of twelve years of able service as treasurer and one year as director of finance, Dr. Frank S. Gibson was named chairman of the Board of Trustees of the Cleveland Medical Library Association at its annual meeting, January 20.

* * *

Dr. Frederick C. Waite, of the faculty of Western Reserve University School of Medicine, Cleveland, attended the Annual Congress on Medical Education and Licensure at Chicago, February 13-14. Dr. Waite has missed only one of the 35 annual sessions of the congress.

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Dr. Robert G. Steele, Melmore, was recently presented with a 50-year veteran's jewel by the local I.O.O.F. lodge in honor of his 50 years of continuous membership in the organization.

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James E. Bauman, Columbus, has been appointed assistant state director of health, a post which he relinquished three years ago after 43 years of service in the department. Bauman succeeds Dr. F. E. Mahla, Marion.

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Dr. Charles W. McGavran, Columbus, whose hobby is wood-carving, recently presented Governor John W. Bricker with a nest of four walnut tables on which he had carved quotations from some of the Governor's addresses.

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Five men were recently arrested by Columbus police, at the request of the State Medical Board, for the unlicensed practice of naprapathy. There are no licensed naprapaths in Ohio.

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The Nobel Prize in medicine will not be awarded for 1938, the Caroline Institute at Stockholm has decided.

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The late Dr. Daniel H. Williams, a Negro surgeon in Chicago, performed the first successful operation upon the human heart.

Dr. Charles E. Holzer, Gallipolis, presided at a meeting of the Ohio Valley Conservation and Flood Control Congress held at Huntington, W. Va., January 27.

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Last year, operatives of the U. S. Treasury Department, aided by other federal agents, local police and other civic authorities, destroyed 26,131 tons of marihuana discovered on 15,132 acres of land in 23 different states.

* * *

If the present drop in the national birth rate continues, the population of France in 50 years will drop from 40,000,000 to 28,000,000.

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Forty-three per cent of the physicians, 73 per cent of the dentists, 38 per cent of the attorneys and 82 per cent of the pharmacists serving Greater Cleveland were trained at Western Reserve University.

* * *

It is estimated that there are about 1,000,000 cases of rheumatic heart disease in the United States, and 40,000 deaths yearly from the disease.

* * *

A survey made some months ago indicated that there were 57,265 beneficiaries receiving hospital or domicilary care under the supervision of the U. S. Veterans' Administration, of whom 50,330 were World War veterans.

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An automobile X-ray unit, equipped with a photographic darkroom, has been delivered to the New York World's Fair. It will give immediate X-ray service to the eight first-aid stations located at strategic points throughout the 1,216½ acres of the Fair Grounds.

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Based on a survey of 4,211 cases, the Chicago Dental Society recently announced that it would cost about $53 to put the average person's teeth into shape.

* * *

A bill was recently introduced in the French Senate penalizing physicians who divide the fees received from patients referred to them for an opinion or operation, and prohibiting rebates given by orthopedic apparatus makers and pharmacists to physicians who send patients to them.

* * *

Members of the Portage County Medical Society recently presented a gold and amethyst bracelet to Dr. Emily J. Widdecombe as a token of their appreciation for her years of service as secretary of the society.

Government's Case Against A.M.A. Vulnerable, Analysis Published by Fordham University Law Review Reveals

MANY members have asked this question during recent weeks: "What is the status of the indictment against the American Medical Association and several of its component societies returned by the Federal Grand Jury at Washington, D. C.?"

There has been nothing to indicate that the Department of Justice has taken any additional steps in its attack on the A.M.A. The situation appears to be the same as it was on last December 20 when the true bill was returned.

However, many interesting comments concerning the action of the Federal Government have been made, among the most interesting and comprehensive of which was an article published originally in the *Fordham University Law Review*, January, 1939, issue, and reprinted in the *Pittsburgh Medical Bulletin*.

The article referred to, as reproduced by the Pittsburgh bulletin, was as follows:

* * *

HISTORY OF LEGAL ATTACK

"Is the American Medical Association, or the subsidiary Medical Society of the District of Columbia, violating the antitrust laws in their opposition to the Group Health Association?

"On February 24, 1937, the Group Health Association, Inc., was granted a charter in Washington as a so-called 'Cooperative Health' corporation. Through a staff of hired physicians it offered to render most types of medical and surgical treatment at a stated annual cost, and offered such services only to Federal employes and their families. The Medical Society of the District of Columbia opposed this new scheme as contravening the best interests both of the public, and of the physicians, and as violative of its own code of ethics, as well as the Principles and Ethics of the American Medical Association which represents some 110,000 physicians in this country.

"The newspapers took up the issues, pro and con, so that they gradually became national in their scope; and the discussion finally invaded Congress early in 1938.

"In July, 1938, in a declaratory judgment, Federal Justice Bailey of the District Court decided among other points that the Group Health Association, Inc., was not practicing medicine without a license.

"Finally, on August 1, 1938, Assistant Attorney-General Thurman Arnold set forth the position of the Department of Justice. In it, he stated that the expulsion, or threatened expulsion by the Medical Society of its members for allying themselves with the Group Health Association, or for having professional relations with doctors of that organization '. . . . . in effect amounts to forcing members of the Medical Society to participate in an illegal boycott of Group Health Association doctors'.

"Arnold offered the Medical Society an opportunity to avoid prosecution by accepting a 'consent decree' which they rejected; hence, on October 17, 1938, the entire matter was placed in the hands of the Federal Grand Jury. Today, the country awaits with great interest the final outcome of this battle between organized medicine and governmental regulation. While the immediate matters here involved concern primarily the medical profession and its relationship to the public, the question ultimately becomes a much broader one. The current charges squarely raise the question whether the medical associations are violating the antitrust laws or are acting in restraint of trade.

"At this time several propositions present themselves for discussion:

"1. Is the Group Health Association, Inc., illegally practicing medicine?

"2. Are the actions of the Medical Society of the District of Columbia a legal and reasonable exercise of the Society's function?

"3. Is medical service such a commodity as to come within the purview of the Sherman and Clayton Acts? . . . .

WERE ACTIONS LEGAL, REASONABLE?

"Are the actions of the Medical Society of the District of Columbia a legal and reasonable exercise of the Society's function?

"Chapter III, Art. 1, Sec. 2 of the Code of Ethics of the American Medical Association states:

> 'In order that the dignity and honor of the Medical profession may be upheld, its standards exalted . . . and the advancement of medical science promoted, a physician should associate himself with medical societies . . . in order that these societies may represent the ideal of the profession.'

"Here we have concrete evidence that every physician is urged to join his local medical society. Usually the only requirement for admission to a county medical society is that the proposed member be a licensed physician, of good moral character, and that he reside, or practice in the county where he seeks admission. In most instances there are no restrictive qualifications of

any kind, so that any physician can become a member without difficulty.

"But when a physician does join a medical society, it has very constantly been held that the rules and by-laws of the society are an agreement which he expressly or impliedly accepts, and by which he agrees to govern his professional conduct.

"The District of Columbia Medical Society also demands of each member within three months after his election to membership, a written consent to be bound by all the rules and regulations of the Society.

"It is thus apparent that every member of the Society is actually put on notice, shortly after joining, that there are such things as rules and regulations, Constitution and By-Laws, which he expressly agrees to abide by and adhere to.

"Furthermore, most active members of the medical societies of this country subscribe to its official magazine, the *Journal of the American Medical Association*. It is reasonable to suppose that a physician who contemplated allying himself with Group Health Association, Inc., should have read the article concerning that association. Had he done so he would have known that such misalliance would doubtless be deemed unethical in that, in the opinion of the Medical Association, that society violates most of the cardinal principles of medical ethics.

"Legally, it makes no difference how selfish or unselfish these society rules and by-laws may be; so long as they do not violate any laws of the land, are not against public policy, and are a legitimate protection of the interests of the members of the society, they are binding upon each member.

"A society's only means of keeping erring members in line are censure, suspension, and expulsion. These weapons are legally recognized checks on straying members, and can only be used against individuals after charges have been preferred against them.

"The only requirements which the law demands of a society are (a) that the member receive adequate notice of the charges to be brought against him; (b) that the charges be violations of the rules and regulations of the society; (c) that the accused be given a fair hearing on these charges.

"If the hearing is held in good faith, since the courts consider it quasi-judicial in character, they have consistently refused to pass on the final verdict of the society.

CONCLUSIONS

"1. The Group Health Association as a corporation is offering to its members all forms of medical and surgical treatment, rendered by physicians in its employ. Despite the fact that Justice Bailey, in a declaratory judgment, has recently decided that this corporation is not practicing medicine illegally, the weight of legal authority seems to be against his holding.

"2. Under the Clayton Act, labor is expressly given the right to organize for the mutual help and benefit of its members, and such combinations are not to be considered as violative of any antitrust laws.

"Similarly, under general rules of law governing associations, unions, corporate and unincorporated societies, individuals may unite to promote and protect their own interests, provided that the purposes of the organization are ligitimate and reasonable, and do not contravene public policy. They may make rules and regulations both as to admission of new members, and as to censure, suspension or dismissal of members who violate any society rules and regulations. If a member is given ample notice of the charges to be preferred against him, if he is fairly tried on those charges, and if the charges themselves are not against public policy, the courts of the nation consistently refuse to interfere with the judgment rendered thereon.

"Hence, when the Medical Society of the District of Columbia dismissed one or more of its members for violating its rules and regulations, or for violating the rules and regulations of the parent organization—the American Medical Association—such dismissal was a reasonable and lawful exercise of society function. Since this exercise of society function is sanctioned by the courts, and permitted under the Clayton Act, it is difficult to understand under what theory of the law Arnold, or the Department of Justice, can now deem these societies to be guilty of violation of our antitrust laws.

"3. Both under the Clayton Act, and by force of stare decisis, it has almost uniformly been held that labor does not come within the purview of the antitrust laws. The practice of medicine, or the rendition of medical service is unquestionably mental or intellectual labor. It has never been classified as a commodity of trade or commerce so far as the writer has been able to determine. Furthermore, the rendition of services is strictly local rather than interstate in its character.

"If, therefore, the views of our higher courts were to change suddenly, and an adverse opinion were to be rendered, in accordance with the beliefs of the Department of Justice, then we would be obliged to change all our previous concepts and notions concerning antitrust laws, and retrogress to the days of the strict Common Law views on the subject. The likelihood of such dramatic change in judicial outlook seems rather remote, without further legislative intervention."

The Physician's Office Records

STANLEY R. MAUCK

THE subject of proper office records for the physician in no way implies a complicated or burdensome system of bookkeeping. On the contrary, the physician needs only the most simple set of financial records which will give him certain essential information. It should be recognized, however, that minimum standards in office records are extremely important, in the interest of both the physician and his patients. Every office should have records that give correct information on the following:

(1) Amount owed by each patient.

(2) Total practice volume for the month.

(3) Total monthly income from practice.
a) Cash at time of service.
b) Payments on account.

(4) The collection ratio, or the percentage of total income to total volume.

(5) Total amount and distribution of monthly professional expense.

In the chapter on "Statements" in last month's issue of *The Journal*, it was pointed out that careless statement procedure is directly related to the poor collection experience of most physicians and that the character of the office records is an important factor contributing to laxness in sending statements. In general, the offices that maintain the best account records have the best collection result, as adequate and up-to-date financial data encourages more regular sending of statements.

PATIENT'S LEDGER CARD

The patient's ledger card is the most important of all the physician's office records. This card invariably should carry three columns for "Charges", "Credits" and "Balance". Each entry on the card, either as a charge or a credit, affects the balance, which should be carried forward immediately after the new entry. If this procedure is followed it is a simple matter to pick up the balance to be entered on the statement at the end of each month. But if the ledger card does not provide for a current balance column, or even if it does and the new balance is not carried forward, there is a tendency to omit prompt and regular statments due to the bother of the additions and substractions required to compute the correct monthly balance. When the ledger card is kept up to date better service may also be rendered to the patient who calls by phone or stops at the office to inquire about his bill, maybe with the intention of making payment. A prompt and definite answer creates a better impression than the faltering request for a few minutes while you "do a little figuring to see what the amount is". Also, in the hasty calculations it is easy to make mistakes that may result in injustice either to yourself or your patient. A current balance on every ledger card is a sound principle of bookkeeping that should be carefully followed.

THIS is the third of a series of articles on "Office Problems of the Physician" which will be presented in Volume 35 of The Ohio State Medical Journal.

Mr. Mauck, author of the series, serves as executive secretary of the Columbus Academy of Medicine and as director of the Columbus Bureau of Medical Economics. Previously he operated a professional management service for physicians.

Mr. Mauck invites questions or comments pertaining to the subjects discussed in these articles, and suggestions as to possible topics for future articles. Communications should be addressed to him at the Columbus Academy of Medicine, 44 E. Broad St., Columbus.

ESSENTIAL DATA

Every account card should carry certain other essential information. The business record is not complete unless the card shows (1) name of patient, (2) name of party to be charged, if different from patient, (3) addresses of both, (4) employment or occupation and (5) the date of each new charge or payment. This rule is so elemental that it seems ridiculous to use space here to emphasize it. Yet the physician's shortcomings are so pronounced in the matter of securing a few simple, but necessary, facts about his patients that special emphasis of the subject is justified. The initials or first name and the correct spelling of the last name are extremely important, as is also careful notation of the addresses. The charge, likewise, should be entered under the name and address of the party responsible for the account, rather than the patient when such person is the wife, son, daughter or other relative. This point frequently has a legal

angle when accounts reach the collection stage. It is also important to have the debtor's employment or business connection noted on the ledger card. Not only is it valuable for the purpose of securing new contact with the debtor after the home address is lost through successive moves, but also the place of employment or business connection is often a good clue to the patient's economic status; or at least, it is a lead for determining this information, when such is desirable. The practical value of this information is revealed when statements are returned from the home address marked with the familiar notations of "gone", "unknown here", etc. A telephone call to the place of employment is often the easiest and most successful method of tracing, or a new statement addressed in care of the firm connection may save the value of the account.

WILL SAVE MONEY AND EFFORT

The observance of these simple precautions when the debt is incurred will save many dollars and subsequent effort in collection. In the first place, if the debtor's correct name and address are known, the statement procedure is again simplified. No time is required at the rush period of the month to complete the missing data so that a statement can be mailed. When this information is omitted, the tendency again is to omit the statement, also. And, in general, accounts that are not billed, don't pay. It is difficult enough for most people to keep paid up on the bills which are received regularly, and they can hardly be blamed if the physician is forgotten when no reminder of his account is received. Frequently, statements fail to reach the party actually responsible for the account, and the result is the same as though no statement had been sent. It is essential, therefore, that the father, the son, the married daughter, etc.—any of whom may have a different address from the patient—be shown on the ledger card as the party to be charged and to whom statements should be sent.

Proper and up-to-date entries on the ledger card constitute no technicalities of bookkeeping. The limited, but highly essential, business information about the patients, for the purpose of completing an adequate financial record, is easily elicited by a few direct or indirect questions at the time of service. No physician is so devoid of business sense that he cannot keep the kind of account records that afford him the best possible protection for the valuable dollars and cents assets of his practice. However, it is common knowledge that most physicians do not maintain adequate financial records, even when they have office help that relieves the physician himself of the details of this work. The mystery in this situation is all the greater when it is realized that by this carelessness each such physician is unnecessarily shorting himself in actual cash income, probably by several hundred or maybe thousands of dollars each year.

"KEEP THE RECORD STRAIGHT"

Every collection agency that has any extensive dealings with physicians recognizes that professional accounts have distinct characteristics. They are usually older than any other classification of accounts, and they are likely to reflect the inadequacy of the physician's records in the omission of full and complete information when the accounts are turned in. In order to collect, it is, of course, necessary for the agency to contact the debtor. Unfortunately, however, far too many of the physician's accounts defy this contact because the debtors cannot be located. Many of the accounts ordinarily turned in for collection in a totally worthless state would have paid to the physician direct had his records been adequate so that regular billing could have been maintained. A good collection result is almost impossible unless you "keep the record straight". The greatest single factor responsible for the uncollectibility of accounts which have been turned over to any collection service is the inability to locate the debtors. The corollary of this is that the average physician literally tosses out his office window the cash value of many otherwise good accounts, when he fails to secure and properly record the necessary financial "case histories". "W. Jones", on Poplar St. or "Anderson", R. F. D. No. 2, may not refuse payment if the patients by these names can be identified from such meager information. Not infrequently names are submitted without any address whatever. Another common occurrence is to have an account submitted in the name of a patient who may be a six year old youngster. The father may be collectible and easily located, were his relationship to the case known, but "Anna Williams" remains an eternal mystery, even to a Pinkerton detective, as the result of the successive moves of the family since the obligation was incurred months, or maybe years, ago. Fewer accounts would go to the collection stage if the physician himself would keep better records.

In this discussion of the patient's account card, which is his No. 1 financial record, reference has been made to it as a ledger "card". Ledger sheets, bound together in a loose leaf binder, will accomplish the same purpose, provided they are ruled for three columns and permit inclusion of all the minimum data referred to above. Permanently bound books, however, are very inadequate as they do not permit careful arrangement of the accounts in alphabetical order—a very important factor in any comprehensive control of the accounts receivable. A simple, inexpensive card system is the overwhelming preference of those who specialize in any independent service

of professional management for physicians. It is far more flexible than the next most acceptable system, which is the loose leaf ledger. Individual cards are also easier handled than a bunglesome ledger, which must be dragged from the shelf or out of the file cabinet every time a single entry is to be made on an individual account. Cards may also be shifted easily from the active to the closed section of the file, and vice versa, whereas the tendency with a ledger is to let the closed accounts accumulate in the active ledger without being transferred, because of the extra bit of effort in the process. Rarely does a physician's office justify any elaborate system of record keeping, especially as it relates to the account record. A filing drawer or cabinet, two or more sets of alphabetical index guides, and a supply of cards, will handle the patients' record service in almost any office. Cards of standard dimensions, such at 3" x 5", 4" x 6", or 5" x 8" are recommended, according to the physician's idea of the size he likes to work with. The 4" x 6" size probably is most practical for most offices. Stock cards that are fairly well suited to the needs, in any of these sizes, are available at any stationery store, although specially printed cards are more desirable as they can be made to conform better to the specifications given above for a comprehensive ledger card. The cost of even the printed cards is small.

The comments in this article have been confined to the patient's account card and how it should be handled. **The subject of "Office Records" will be discussed further in next month's issue.**

March 15 is the last date for filing your income tax return for 1938. Provisions of the law and suggestions as to procedure in preparing returns were published in the February, 1939, issue of the Ohio State Medical Journal, pages 184-189.

Increase in Number of Occupational Disease Claims During 1937

A summary of the occupational disease claims filed with the State Industrial Commission during 1937, shows a marked increase over the previous year, according to *The Monitor*, monthly bulletin published by the Division of Safety and Hygiene.

In 1936 the total number of claims filed was 1,388, while in 1937 the total was 1,694. It should be noted, however, that these totals are based upon the applications that are made and do not indicate that each claim meant that a compensable occupational disease existed. One hundred and fifty-six of these claims were filed for conditions which were not included in the schedule of compensable diseases and were, therefore, tabulated as non-compensable at the time of filing. In this group there was an increase of 47 claims over the previous year.

As usual, skin diseases were responsible for a very large percentage of the claims filed, the total in this classification being 1,120 claims, or 155 more than in 1936. In further analyzing the claims filed for skin diseases it is found they have been classified as follows according to the probable causes. Those due to oils 37; cutting compounds or lubricants 210; dust 365; liquids or solutions 394; fumes, gases or vapors 24; chromium ulceration of the skin or nasal passages 89, of which 60 were for skin ulcerations and 29 for ulceration of the lining of the nose.

There was also an increase of 95 claims for lead poisoning, with a total of 209 filed. This marked increase was due largely to unusual outbreaks of lead poisoning among the employees of three plants. In one plant there were 25 cases, in another 50 and in the third 12, making a total of 87 claims. Two of these plants were engaged in the manufacture of automobile and truck bodies and the cases of lead poisoning resulted from the inhalation of dust caused by the grinding of metallic lead used for filling cracks and seams in the metal bodies. The other group of cases occurred in a glass plant where a lead color was used in powder form and lead poisoning resulted from the inhalation of this powder. In each instance the discovery of the cause of the lead poisoning and the application of proper methods of prevention resulted in the elimination of lead poisoning among the employees.

The number of claims filed for tenosynovitis and prepatellar bursitis was 174, only three more than during the previous year. Of this number 141 were for tenosynovitis and 33 for bursitis.

Among the various poisonings, chemical and metal, other than lead, 29 claims were filed and in this group also there was an increase of about 15 claims. These were divided as follows: brass and zinc 5, arsenic 1, anilin 1, benzol or derivatives 12, carbon dioxide 1, potassium cyanide 2, volatile petroleum products 4, carbon bisulphide 1, sulphur dioxide 1, mercury 1. In recalling the consideration of these claims in the group above mentioned it was found that when further investigation was made a number of these were due to conditions other than that which was stated in the application.

On July 31, 1937, silicosis was added to the list of compensable occupational diseases and after that date a number of claims were filed, but only six were considered as coming within the provisions of the law. The remainder were classed as non-compensable and included in that group.

Medical Facilities of State Hospitals in Ohio Are Inadequate and Salaries Too Low, Report Declares

STATE mental institutions in Ohio lack adequate medical facilities, are under-staffed, and the physicians now employed in such institutions are not as well paid as those in other states, according to a report filed recently with Charles L. Sherwood, State Director of Public Welfare, by a committee appointed by Dr. C. C. Kirk, president of the Association of Physicians of Ohio State Institutions last June.

The committee consisted of Dr. J. Fremont Bateman, state commissioner of mental diseases; Dr. E. E. Baber, superintendent, Longview State Hospital, Cincinnati, and Dr. O. O. Fordyce, superintendent of Toledo State Hospital.

A survey was made of the salaries and other remunerations furnished physicians in the mental hospitals in Ohio and other states, and the average per capita cost for maintenance of mental patients in the various states. Ohio ranked 34th among the 45 states reporting on salary schedules and 39th among the 48 states in the per capita cost of caring for and treating the mentally ill.

The State Department of Public Welfare intends to ask the State Legislature to appropriate sufficient money during the present session to partially rectify the situation.

REPORT QUOTED

The report of the committee, which contains much information of general interest to the medical profession was as follows:

"This committee sent a questionnaire to each of the mental hospitals in Ohio requesting information as to the salaries of each physician, time in service, married or single, wife employed, number of rooms occupied and with or without private bath. The information obtained disclosed consistency in carrying out the salary schedule, but it was observed that at some of the state hospitals, particularly, much more adequate and satisfactory rooming accommodations are provided than at others.

"At some of the state hospitals, in many instances, the assistant physician is provided with but one room without private bath, while a few are provided with a private residence or suite of rooms and private bath. In quite a number of instances the physician is compelled to live outside the hospital because of lack of rooming accommodations.

"Generally speaking, there is a decided lack of satisfactory housing facilities for the medical staffs at the mental hospitals. This is a highly important matter as it is the home of the medical officer while so employed. It is the inherent desire of the young physician upon graduation, after having lived from four to eight years in the bedroom of some rooming house and in close confinement in a general hospital while serving his internship, to establish a home of his own where some degree of privacy can be enjoyed, where he can entertain his friends and relatives and where he may rightfully feel at home. Especially is this true if the doctor is married. If satisfactory living conditions are not provided and the doctor is industrious, progressive and worth while, he will leave the service.

HOUSING FACILITIES POOR

"Adequate and satisfactory housing accommodations must be provided if the hospital is able to attract and hold in the service the most capable, industrious and desirable medical officers. Therefore, your committee urgently recommends that an earnest effort be made to provide adequate and satisfactory rooming accommodations for all the assistant physicians in the service.

"It is generally conceded by those best informed in the care and treatment of mental patients, that Massachusetts and New York are foremost in this respect. In this connection it should be remembered that for a great many years the mental hospitals in both Massachusetts and New York have been under the jurisdiction of a commissioner of mental diseases. The penal and reformatory institutions in these two states are under a different governing body. The commissioner of mental diseases assumes responsibility of the mental hospitals and is endowed with full authority. Michigan has more recently created a similar set-up with a director of mental diseases, assisted by a non-salaried hospital commission.

"If one were to compare the personnel at our state hospitals as regards the number of physicians, nurses, attendants, social workers, occupational therapists—those who have the care and treatment of the patients, with the state hospitals in Massachusetts and New York, it is readily apparent that the Ohio state hospitals are being operated by approximately a 50 per cent personnel and also on about a 50 per cent per capita maintenance cost. For example, the annual report of the Taunton State Hospital, Taunton, Massachusetts, for the year ending November 30, 1937, gives the average daily popula-

tion as 1,644. The Taunton State Hospital is somewhat smaller than the Dayton State Hospital. The annual report of the Dayton State Hospital for 1937 gives the average daily population as 1,697. The Taunton State Hospital employes 11 assistant physicians and reports one vacancy as compared to 4 assistant physicians at the Dayton State Hospital. The total number of employees in the Taunton State Hospital is 434 as compared to 183 at the Dayton State Hospital. The per capita cost at the Taunton State Hospital was $418.44 as compared to $185.80 at Dayton.

COMPARISON ANALYZED

"In this connection it is interesting to compare the Utica State Hospital, Utica, New York, with the Dayton State Hospital. The average daily population of the Utica State Hospital for 1937 is given as 1,672. The per capita cost of Utica for 1937 was $448.14. The Utica State Hospital employes 11 assistant physicians including a clinical director and pathologist. The total number of employees at Utica is given as 409. The report further states that six frame cottages for physicians were completed in September, 1936, at the Utica State Hospital.

"The average per capita cost of the New York civil state hospitals for 1937 as disclosed by the annual report of the Department of Mental Hygiene, was $389.27. The average per capita cost of the Ohio state hospitals for the civil insane for 1937 was $191.78, which is less than one-half of the per capita cost in New York. The average per capita cost of all the Ohio state hospitals, including the Lima State Hospital, for the criminal insane for 1937 was $197.68.

"The replies to the questionnaire sent to the Ohio mental hospitals reveals that there were 41 assistant physicians and 3 residents in neuropsychiatry, making a total of 44 physicians employed patients in the 8 Ohio state hospitals for the the civil insane. Thirteen of these physicians or 30 per cent had been in the service for less than one year, and more than half of these for less than three months. The average ratio of physicians to patients in the eight Ohio state hospitals for the civil insane was one to 393 based upon the total population of these institutions as reported June 1, 1938. In New York and Massachusetts the ratio of physicians to patients is approximately one to 200.

OPINIONS OF OFFICIALS

"One superintendent with a population of 1,690 writes when returning the questionnaire, 'We have four physicians but are allowed five. I have been trying for more than a year to find a physician. Several apparently desirable physicians have contacted me but because they have children we have no living quarters suitable and they would not come. Quite a few undesirables, such as old broken-down men, alcoholics, etc., have applied, but of course I would not take them. Would recommend that the ratio of physicians to patients be one to 200. Would like to have both a clinical director and pathologist at this hospital.'

"Another Ohio superintendent with a population of 1,734 writes, 'At the present time we have but one assistant physician for approximately 435 patients. Anyone knows with so limited a medical personnel it is impossible to administer the type of treatment to which our patients are entitled. In my opinion we should not expect our assistant physicians to care for more than 300 patients each and I feel that the ratio of one to 200 patients would be better. I feel that there is a place on the medical staff of every state hospital for both a clinical director and pathologist.'

"Another Ohio superintendent with a population of a little more than 2,200, informed us that his hospital had five assistant physicians and one of them had resigned. He did not know of a single qualified applicant to fill the vacancy and was obviously very much concerned about the situation. These are pretty much the type of letters received from the superintendents in response to the questionnaire sent them.

"The Civil Service Commission with its extensive system of advertising, has been but little help in finding physicians for our mental hospitals. For example, the Commission has not been able to make a single certification for assistant phyician, other than provisional appointee in the last five years at the Toledo State Hospital.

STAFFS INADEQUATE

"The use of insulin and metrazol therapy in the treatment of mental patients has greatly added to the duties of the assistant physician and has required many additional nurses and attendants. The Toledo State Hospital has not by any means been able to treat all the patients recommended by the medical staff for insulin and metrazol therapy because of the inadequacy of the medical staff. At some of our state hospitals the members of the medical staff are compelled to collect enough money from the relatives of the patient to purchase the insulin or metrazol to be used in treating the patient. The New York state hospitals furnish all the insulin and metrazol used in the treatment of the patients.

"The members of this Association who are interested are all familiar with the salary schedule for physicians in Ohio welfare institutions. Please bear this in mind in making comparison with the following salary schedules. We have mentioned three states, viz., Massachusetts, New York and Michigan, as being outstanding in state hospital work. Maintenance is provided for all resident physicians in these three states. The salary

schedule for assistant physicians in Michigan state hospitals is $1,800 to $2,700: assistant superintendent, $2,700 to $3,600; superintendent $4,500 to $6,000. The director of mental diseases receives $9,000 per annum without maintenance.

"The salary schedule for resident physicians in the state hospitals in Massachusetts is as follows: Junior assistant physicians $1,800 to $2,400, annual increase $120; senior assistant physicians $2,500 to $3,060, annual increase $135; assistant superintendent $3,300 to $4,260, annual increase $240. The salary of the clinical director is the same as the first assistant physician. The superintendent's salary is $4,500 to $5,700, annual increase $350.

NEW YORK FIGURES

"In the New York state hospitals medical interns receive $1,800 per year; assistant physicians receive $2,000 to $2,400, annual increase $200; senior assistant physicians $2,400 to $3,200, annual increase $300; the first assistant physician, clinical director and pathologist each receive $3,200 to $4,000, annual increase $300; superintendents $4,000 to $6,000, annual increase $500. The commissioner of mental diseases receives an annual salary of $12,000. It will be observed that in both Massachusetts and New York the first assistant physician and the clinical director and in New York the pathologists all are on a higher salary schedule than any of the superintendents of the mental hospitals of Ohio or any of the other managing officers. This is true in many of the other states.

"While your committee has especially deemed it advisable to make comparison of the Ohio state hospitals with those in Massachusetts and New York because of the comparatively high medical standards established and maintained in these two states and which we would like to emulate, a questionnaire was sent to the state hospitals in all the 48 states, District of Columbia and some of the United States Veterans' Hospitals. The questionnaire requested information as to the monthly salary of the superintendent, assistant superintendent, clinical director, pathologist, ward physician, resident in psychiatry, dental officers, pharmacist, X-ray and laboratory technician, physiotherapist, hydrotherapist, superintendent of nurses and chief occupational therapist. Replies were received from 45 states. The states not returning the questionnaire were Georgia, North Carolina and Arizona.

"Time here does not permit a detailed report of the information obtained. However, the following figures will give one a fairly comprehensive idea of the salary range of the superintendent and other medical officers in the state hospitals in the following states. Full maintenance is provided in all the states herein mentioned.

"In Pennsylvania the superintendent's salary is $5,000 to $8,000, assistant physician's salary, $1,392 to $5,332; South Carolina, superintendent, $7,500, assistant physicians, $1,800 to $3,884; Delaware, superintendents, $6,300, assistant physicians, $1,320 to $3,884; New Jersey, superintendents, $6,000, assistant physicians, $2,000 to $4,992; Louisiana, superintendents, $6,000, assistant physicians, $3,300 to $3,600; Rhode Island, superintendents, $6,000; assistant physicians, $1,800 to $4,000; California, superintendents $5,520, assistant physicians, $2,400 to $3,840. Ohio ranked 34th among the 45 states reporting as regards the salaries paid superintendents and assistant physicians in state hospitals.

"The average per capita cost for maintenance for medical patients in state hospitals in the United States for the year 1936, as disclosed by the records of the United States Department of Commerce, Bureau of Census was $269.05. The average per capita cost of the Ohio state hospitals for 1936 was $178.10. Ohio ranked 39th among the 48 states in per capita maintenance cost of caring for and treating the mentally ill. The only 9 states which had a less per capita expenditure for maintenance were Virginia, West Virginia, North Carolina, Georgia, Kansas, Mississippi, Arkansas, Idaho and Oregon. In 1935 Ohio ranked 37th in this respect.

"Why should Ohio be so low with respect to salaries and per capita maintenance cost in comparison with other states? Ohio ranks 4th in population, 4th in wealth, 5th in the payment of income taxes and 5th in the number of automobile owners. Although more than 25,000 patients of the approximately 37,000 inmates in the various State welfare institutions are psychiatric cases, there has never been until recently a phychiatrist or physician in the Department of Public Welfare to represent the patient and the medical work in the mental hospitals.

"It is the belief of your committee that if the medical standards of the Ohio state hospitals are increased to a level to be determined and approved by the Director of Public Works, the commissioner of mental diseases and the medical superintendents of the mental hospitals with adequate salaries paid and satisfactory rooming facilities provided for the medical officers, it will not only result in the type of medical care and treatment to which the patients are entitled, but this greatly improved service and added emoluments will attract a greater number of physicians and will hold in the service the most capable, progressive and desirable type of physician, thereby resulting in a much larger percentage of recoveries and discharges and a very substantial depletion in the patient population of our state hospitals."

In Memoriam

Taylor Russell Baldridge, M.D., Dayton; Medical College of Ohio, Cincinnati, 1899; aged 78; former member of the Ohio State Medical Association and the American Medical Association; died January 22. Dr. Baldridge practiced medicine in Dayton for 30 years. Prior to that time he had practiced five years in California and five years in Cedarville. Dr. Baldridge was a member of the Masonic Order and the Presbyterian Church. Surviving are his widow and two sons.

Almon Dwight Birchard, M. D., Cincinnati; Miami Medical College, Cincinnati, 1884; aged 81; died February 20. Dr. Birchard practiced in Cincinnati for 53 years. He was an elder in the Church of the Covenant. Surviving are his widow, two daughters, a son, two sisters and a brother.

Chester Dale Christie, M.D., Cleveland; Western Reserve University School of Medicine, 1913; aged 53; member of the Ohio State Medical Association, Fellow of the American Medical Association, and certified by the American Board of Internal Medicine; died January 27. Dr. Christie, assistant clinical professor of medicine at Western Reserve University, practiced in Cleveland for 35 years. During the World War he served overseas in Dr. George Crile's medical unit. Dr. Christie was one of the speakers on the State Association's Postgraduate Lecture series at Springfield last Fall. He had also appeared on the program at several annual meetings of the Association. His widow survives.

Earle Wayne Cliffe, M.D., Youngstown; Cleveland-Pulte Medical College, 1909; aged 54; member of the Ohio State Medical Association and the American Medical Association; died February 1. Dr. Cliffe was chief of the obstetrical staff of St. Elizabeth's Hospital, Youngstown, where he had practiced for 25 years. In 1916 he served on the Mexican border as lieutenant in the Medical Corps of the Ohio National Guard. He later was in command of the medical detachment of the Tenth Ohio Infantry, and was a major in the 37th Division, serving in France for over a year. Dr. Cliffe was a member of the Presbyterian Church, Masonic Order, American Legion and the Lions Club. Surviving are his widow, two sons, three sisters and two brothers.

Joseph B. K. Evans, M.D., McGuffey; American Eclectic Medical College, Cincinnati, 1889; aged 75; member of the Ohio State Medical Association and the American Medical Association; died February 10. Dr. Evans practiced medicine in Huntersville, Cannonsburg and Jenera for 10 years, and for the past 42 years in McGuffey. He was a member of the Masonic Order and the Modern Woodmen of America. Surviving are his son, Dr. R. K. Evans, Lindsey, three daughters and a sister.

William T. Fitzgerald, M.D., Greenville; Cleveland College of Physicians and Surgeons, 1891; aged 80; member of the Ohio State Medical Association and the American Medical Association; died January 12. Dr. Fitzgerald retired several years ago, after practicing medicine in Greenville and vicinity for over 40 years. From 1925 to 1929 he was the Republican Congressman from the Fourth Ohio District. From 1921 to 1925 Dr. Fitzgerald was mayor of Greenville. He was a member of the Ohio National Guard from 1875 to 1882. His widow, four daughters, one son and a brother survive.

John Rossiter Gleason, M.D., Cleveland; Cleveland University of Medicine and Surgery, Homeopathic, 1889; aged 78; died January 30. A former president of the Northeastern Ohio Homeopathic Society, Dr. Gleason practiced in Ohio for over 40 years. He first located in Cleveland in 1891, leaving there in 1898 to practice in Marietta, where he remained until 1904. He practiced in Windham, Portage County, until 1911, then moved to Medina, where he continued in practice until his retirement in 1934. Dr. Gleason was a charter member of the Medina Kiwanis Club and was also a member of the Knights of Pythias. His widow and a daughter survive.

William E. Howell, M.D., Gallipolis; Medical College of Ohio, Cincinnati, 1897; aged 70; member of the Ohio State Medical Association and the American Medical Association; died January 21. Dr. Howell had practiced in Rio Grande and Gallipolis for many years. He was Gallia County's first health commissioner, and a trustee of Rio Grande College. A golf enthusiast, Dr. Howell had been a member of the local golf club ever since it was organized. Surviving are his widow, a daughter, two sons and three sisters.

Hugh Forsythe Lorimer, M.D., Denver, Colorado; Columbus Medical College, 1883; aged 82; member of the Colorado State Medical Association and Fellow of the American Medical Association; died January 9. Dr. Lorimer practiced in Jamestown, Greene County, for several years before going to Denver about 25 years ago. He is survived by his widow, two daughters, three sisters and two brothers.

Thomas J. Miller, M.D., Norwich; Columbus Medical College, 1878, and Medical College of Ohio, Cincinnati, 1887; aged 90; died February 5. Dr. Miller began the practice of medicine in Sedgwick, Kansas, later practicing in Cambridge and New Concord. He retired several years ago

because of ill health. He was a life-long member of the United Presbyterian Church. His widow and two daughters survive.

Frank Morris, M.D., Lima; Starling Medical College, Columbus, 1892; aged 71; member of the Ohio State Medical Association and Fellow of the American Medical Association; died January 25. A member of St. Rita's and Memorial Hospital staffs, Dr. Morris had practiced in Lima for 20 years. He is survived by two daughters, two sons, two sisters and a brother.

Harry Webster Powers, M.D., Amherst; Cleveland College of Physicians and Surgeons, 1886; aged 75; former member of the Ohio State Medical Association and the American Medical Association; died January 16. Dr. Powers retired two years ago, after having practiced in Amherst and South Amherst for over 40 years. Active in community affairs, he had served three terms as a member of the village council of Amherst, and was a member of the Congregational Church. Surviving are his widow, a daughter and two sons. Another son, Dr. Ralph Powers, died in Russia in 1918 while on duty in the U. S. Army.

Charles Butterfield Rogers, M.D., Miami Medical College, Cincinnati, 1897; aged 66; member of the American Psychiatric Association; former member of the Ohio State Medical Association and the American Medical Association; died January 27. In 1898 Dr. Rogers became associated with the Cincinnati Sanitarium. Later he entered private practice in Barnesville, and in 1923 became medical director of Orchard Springs Sanitarium, Dayton. In 1933 he was appointed head of the state bureau of mental classification and segregation by Governor White. This bureau was abolished by Governor Davey in 1935, and Dr. Rogers became psychiatrist at the Ohio Penitentiary, a post which he relinquished shortly because of ill health. His widow survives.

William James Sharpe, M.D., Toledo; McGill University Faculty of Medicine, Montreal, Canada, 1872; aged 88; died February 4. Dr. Sharpe retired in 1928, after having practiced in Maumee and Toledo for many years. Surviving are a daughter, a sister and a brother.

John Jay Waite, M.D., Deerfield; Cleveland-Pulte Medical College, 1900; aged 79; member of the Ohio State Medical Association and the American Medical Association; died January 26. A native of Portage County, Dr. Waite practiced at Deerfield since 1906. He was a member of the Masonic Order. His widow and a sister survive.

William W. Welch, M.D., Wooster; Western Reserve University School of Medicine, 1884; aged 77; died February 2. Dr. Welch began the practice of medicine in Deersville. From there he moved to Tappan, where he practiced for 14 years. He then located in Dundee, Tuscarawas County. During 1905-1906 he was a member of the staff of Cleveland State Hospital, and in 1907 returned to general practice at Wooster, continuing there until his death. Surviving are his widow, a daughter, a sister and a brother.

Charles Wittenmyer, M.D., Arcanum; Detroit Medical College, 1885; aged 82; former member of the Ohio State Medical Association and the American Medical Association; died February 6. Dr. Wittenmyer practiced at Wamsleyville, Adams County, for a number of years, moving to Arcanum 45 years ago. His widow and a son survive.

Great Advance in Public Health Made in Last Fiscal Year, Parran Reports

Surgeon General Thomas Parran of the U. S. Public Health Service in his annual report said: "A greater advance has been made in public health in the United States during the past two years than ever before within a comparable period."

Dr. Parran, reviewing the work of the organization, at the close of the 140th year of its existence, noted developments that have followed the assumption of new responsibilities by the Government in matters relating to public health, particularly with reference to activities made possible through the enactment by Congress of the Social Security Act, the Venereal Disease Control Act and the National Cancer Institute Act.

Commenting upon health conditions in the United States during the fiscal year ended June 30, 1938, the report states that the general death rate for the calendar year 1937 was 10.9 per 1,000 population, as compared with 11.3 for the preceding year. This favorable condition continued in 1938, when preliminary figures for the first six months disclosed a mortality rate of 10.8 per 1,000 population as compared with 11.8 for the corresponding period of 1937.

There was also recorded a decrease in infant mortality from 57.1 per 1,000 live births for 1936 to 54.4 in 1937. The maternal mortality rate continued to decline; 4.6 per 1,000 live births in 1937 against 5.3 during 1936.

As infant, maternal and general death rates are sensitive indexes of prevailing health conditions, the reduced rates in these fields indicate a decidedly favorable trend.

Tuberculosis mortality resumed a downward course after a slight increase in 1936. The improvement was apparent in the provisional tuberculosis death rate which declined from 51.7 per 100,000 population in 1936 to 49.6 in 1937.

During 1937 lowered death rates were reported for typhoid fever, scarlet fever, diphtheria, tuberculosis, malaria, pellagra, nephritis and puerperal

causes. With regard to smallpox, Dr. Parran said: "During 1937 a total of 11,673 cases of smallpox was reported, as compared with 7,834 in 1936 and 7,957 in 1935. The number of reported cases in 1937 was the highest since 1931. Fortunately the prevailing smallpox is of a mild, nonvirulent type, causing relatively few deaths. The eradication of this unnecessary disease depends upon the intelligent application of vaccination."

The United States suffered minor epidemics of influenza and poliomyelitis in 1937. The number of cases of poliomyelitis, 9,511, has been exceeded only in four previous years for which records are available, 1916, 1927, 1931 and 1935.

The leading causes of death in 1937 were diseases of the heart, cancer and other malignant tumors, pneumonia, cerebral hemorrhage and softening, nephritis, accidents (except automobile) and tuberculosis.

During the year the Congress appropriated $3,000,000 for the purpose of assisting states and their political subdivisions in establishing and maintaining adequate measures for the prevention, control and treatment of venereal diseases. There were also included provisions for training of personnel and for making studies, investigations and conducing demonstrations designed to develop more effective control measures.

The preparation and dissemination of instructive literature, charts, posters and exhibit material continued during the year. Measures designed to control syphilis in industry were inaugurated. The control program was favorably received by industrial organizations.

With the completion of the Public Health Service hospital at Fort Worth, Texas, for the care and treatment of drug addicts the facilities for this specialized work have been materially increased. The hospital at Lexington, Kentucky, engaged in treating drug addicts and making scientific investigations, operated to full capacity with an average daily census of 949 patients.

Research was continued in pyretotherapy, focal infections, arthritis and psoriasis. Vitamin D was shown to be valuable in the treatment of psoriasis.

The erection of a group of specially designed structures for the National Institute of Health on a site near Bethesda, Maryland, makes available increased facilities for scientific research into the causes and prevention of disease. The investigative work of the Institute covers an increasingly broad field. Continued attention was directed to the control of biologic products, particularly anti-pneumonococcic rabbit serum, antimeningococcic serum, and close supervision over the stability of arsphenamine.

In the field of industrial hygiene investigations were directed to the development of means for the protection and the improvement of the health of workers in various fields of industry among which the pottery, granite, lead storage batteries, fur and manganese industries may be mentioned.

"The activities of the National Institute of Health," comments the Surgeon General, "are becoming increasingly varied and numerous. Thus one group of workers is engaged in chemical and chemotherapy research while another is directing its attention to studies of such infectious diseases as Rocky Mountain spotted fever, typhus fever, scarlet fever, Weil's disease, leprosy and poliomyelitis. A special series of investigations have shed considerable light upon the various phases of trichinosis infection and the means of its prevention. Clinical, epidemiological and laboratory studies of heart disease, especially the rheumatic type, have produced valuable information."

The interesting discovery was made that fluorides, which cause mottled enamel that disfiguring discoloration of the teeth, may be removed from drinking water by treatment with manganese dioxide, a method which gives promise of economical development.

A basis for future cancer studies is being laid through grants-in-aid to selected institutions and the training of research specialists.

The availability of funds under the provisions of the Social Security Act has made it possible to assist in improving state and local health administration. Whole-time health services in rural areas have been greatly augmented. From January 1, 1935, to December, 1937, there was an increase in full-time health units of 96 per cent. Facilities for the promotion and supervision of such full-time facilities have been developed in 19 states. Stimulated by Federal grants-in-aid the state and local appropriations for public health purposes have increased $8,000,000 annually.

Action Delayed on Health Insurance

The New York State Temporary Commission to Formulate a Health Program, a committee of the state legislature, in a preliminary report adopted January 11, recommended that legislative action on a health insurance plan be postponed for another year while a broad and thorough study of the subject is being made. Assemblyman Robert F. Wagner, Jr., son of U. S. Senator Robert F. Wagner, New York, is secretary of the committee.

Columbus—Members of the medical advisory staff of Mt. Carmel Hospital are: Dr. C. E. Turner, Dr. E. Harlan Wilson, Dr. Leslie Lisle, Dr. H. O. Bratton, Dr. Wells Teachnor, and Dr. Paul A. Hoyer.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

A discussion of the topic, "The Medical Care of the Low-Income Group", was ably led by Dr. Parke G. Smith, Cincinnati, President-Elect of the Ohio State Medical Association, and Charles S. Nelson, Executive Secretary of the Association, at a dinner meeting of the Butler County Medical Society, Wednesday, February 8, at Hamilton. Sixty physicians were present, including several from adjoining counties. The society's meeting date has been changed to the last Thursday of each month. Dr. Leon Schiff, assistant professor of medicine, University of Cincinnati College of Medicine, will speak on "Jaundice" at the meeting March 30.—Vera Coombs Iber, M.D., secretary.

CLINTON

Dr. Charles W. Beaman, Cincinnati, spoke on "Symptomatic Vomiting in Children", at a meeting of the Clinton County Medical Society, Tuesday noon, February 7, at the General Denver Hotel, Wilmington.—News clipping.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during February:

February 7—"Value of Radiation Therapy in Skin Carcinoma", by Dr. Archie Fine and Dr. Samuel Brown, with discussion by Dr. Leon Goldman.

February 14—Joint Meeting with the Cincinnati Dental Society. "Oral Manifestations of Deficiency Diseases", by Dr. Marion A. Blankenhorn.

February 21—"The Concept of Organic Suicide", by Dr. Karl Menninger, Topeka, Kansas.

February 28—Hospital Night, Bethesda Hospital. Case Reports by members of staff—"Sarcoid", by Dr. Ellis R. Bader; "Thrombo-Cylopalmic Purpura", by Dr. Oscar Berghausen; "Surgical Treatment of Three Weeks' Old Infant With Myelomeningocele", by Dr. L. Courtney Jack; "Treatment of Angioma", by Dr. Daniel J. Kindel; "Technic in Bone Plating Lower Third of Femur", and "Complicating Coronary Disease and Surgery", by Dr. Walter R. Griess; "Some Microscopic Skin Changes in Two Patients Treated with Homolagous Hormones", by Dr. Karl G. Zwick, Cincinnati; "Traumatic Separation of Placenta with Intra-Uterine Bleeding Complicating Eclampsia at Term", by Dr. Daniel J. Davies; "Mucocele of the Appendix", by Dr. E. A. Kindel; "Essentials of Hypertension Treated by Sympathectomy", by Dr. George E. Rockwell and Dr. Richard B. Homan.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Thirty-three members were present at a noon meeting of the Clark County Medical Society, Thursday, January 26, at the Hotel Shawnee, Springfield. Speakers were Dr. D. W. Hogue, Dr. R. R. Richison and Dr. Oscar M. Craven.—G. M. Lane, M.D., secretary.

DARKE

Dr. E. R. Arn, Dayton, spoke on "Intestinal Obstruction", at a meeting of the Darke County Medical Society, Friday evening, February 17, at Greenville.—W. D. Bishop, M.D., secretary.

GREENE

An interesting lecture on "The Red Eye" was given by Dr. Arthur M. Culler, Dayton, at a meeting of the Greene County Medical Society, Thursday, February 2, at Xenia. Professor Samuel S. Harby, Antioch College, spoke on "Cooperative Hospitalization". No action was taken by the society in aiding to formulate plans for the guidance of this group in a scheme for financing hospitalization expense.—Donald F. Kyle, M.D., secretary.

MIAMI

At a meeting of the Miami County Medical Society, Friday afternoon, February 3, at Stouder Memorial Hospital, Troy, Dr. J. F. Beachler, Piqua, spoke on "Intestinal Obstruction". Dr. K. F. Lowry, Troy, led the discussion.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

"Practical Aspects of Sulfanilamide Therapy", was the subject presented by Dr. D. L. Rose, at a meeting of the Montgomery County Medical Society, Friday evening, February 3, in the auditorium of the Fidelity Medical Building, Dayton. Discussants were: Dr. Karl W. Horn, Dr. A. B. Brower and Dr. Fowler.

Dr. Chas. A. Doan, professor of medicine, Ohio State University College of Medicine, spoke on "Recent Advances in the Differential Diagnosis and Specific Therapy of the Purpuric States", at a meeting of the society, Friday evening, February 17.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

ALLEN

Dr. Thomas E. Jones, Cleveland, addressed the Academy of Medicine of Lima and Allen County, Tuesday, January 17, at Lima on "Diverticulitis of the Colon".—Edward B. Pedlow, M.D.

RECENT ADVANCES IN THE SCIENCE OF NUTRITION

VII. The Unknown Vitamins

● The past twenty years of biochemical research have steadily brought additions to the list of vitamin factors known to be indispensable in proper human nutrition. Today, only vitamins A, B_1, C and D, riboflavin and the P-P factor are universally considered as essential to man. In general, the requirement for these factors is greater in certain phases of the human life cycle than in others.

This list of essential factors is probably incomplete. It has been aptly stated (1) that our species has evolved in the direction of lengthening rather than shortening the list of known dietary essentials. However, it is reasonable to believe that the above list, although incomplete, probably does include all factors whose absence from the ration may cause the most severe types of human dietary deficiency disease.

Investigations on the nutritive requirements and the biochemistry of the lower forms of animal and plant life constitute the frontiers of modern vitamin research. From studies such as these may come the first clues as to new vitamins which may ultimately be proven essential in human nutrition. For example, it was upon research of this type that the dietary requirement of the rat for riboflavin was established and the importance of riboflavin (1) in human nutrition postulated.

During recent years, a large number of factors essential to animals other than man has been enunciated (2). As examples might be mentioned the factor in plant juices required by herbivora (3); the factor in fresh meat essential to trout (4); and vitamin K, needed for normal blood coagulation in fowls (5). Whether these or others of the factors essential to lower forms of life will also prove indispensable to man, the future must decide.

The knowledge that our present list of essential vitamins may be incomplete, need not be alarming. However, such knowledge should serve to emphasize the desirability of a diet formulated according to the best present concepts of the science of nutrition. Nature intends that man should receive all dietary essentials, known or unknown, through food and it will be through the medium of a judiciously chosen, varied diet that these essentials can best be obtained. Needless to state, the several hundred varieties of wholesome, nutritious, commercially canned foods lend themselves admirably to formulation of such varied, protective diets.

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(1) 1938. J. Amer. Med. Assn. 110, 1278.
(2) 1938. Ibid. 110, 1441.
(3) 1936. Proc. Soc. Exper. Biol. Med. 35, 217.
(4) 1928. Science. 67, 249.
(5)a. 1935. Nature. 135, 652.
b. 1935. Biochem. J. 29, 1273.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-sixth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.

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AUGLAIZE

At a meeting of the Auglaize County Medical Society, Thursday evening, February 9, at the Court House, Wapakoneta, Dr. John Lo Cricchio, Lima, spoke on "Significance of Routine Laboratory Tests".—Chas. C. Berlin, M.D., secretary.

HARDIN

"Public Health Service" was the subject discussed by Dr. Harry Wain, head of the student health service at Ohio Northern University, Ada, Thursday evening, January 19, at a meeting of the Hardin County Medical Society.

MARION

Officers of the Marion Academy of Medicine are: Dr. Warren C. Sawyer, Marion, president; Dr. Floyd D. Yeager, Marion, vice-president; Dr. John Alfred McNamara, Marion, secretary; Dr. Milton Axthelm, Caledonia, treasurer; Dr. Thomas H. Sutherland, Marion, legislative committeeman; Dr. E. L. Brady, Dr. C. J. Altmaier, Dr. H. S. Rhu, Marion, and Dr. C. L. Baker, Caledonia, members, public relations committee; Dr. H. K. Mouser and Dr. C. W. Sawyer, Marion, members of medical economics committee; Dr. Baker, delegate; Dr. R. G. McMurray, Marion, alternate.—John Alfred McNamara, M.D., secretary.

WYANDOT

Dr. O. P. Klotz, Findlay, Councilor for the Third District of the Ohio State Medical Association, spoke on organization matters at a meeting of the Wyandot County Medical Society, Thursday night, February 2, at Upper Sandusky.—News clipping.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

Officers of The Toledo Academy of Medicine for 1939 are: Dr. Carll S. Mundy, president; Dr. C. E. Hufford, president-elect; Dr. W. W. Green, secretary; Dr. W. W. Alderdyce, treasurer; Dr. E. W. Huffer, chairman, and Drs. A. A. Applebaum, R. H. Elrod, T. J. C. Kiess, J. A. Lukens, Dr. C. Mebane and H. M. Scott, members of public relations committee; Dr. F. M. Douglass, director of medical economic section (under which the following chairmen serve: Dr. F. N. Nagel—medical insurance; Dr. L. D. Miller, indigent care control; Dr. A. A. Brindley, dispensary, free clinic and social service; Dr. R. C. Young, advisory committee to the Credit Association). Delegates—Dr. E. B. Gillette, Dr. Brindley and Dr. J. F. Wright; alternates—Dr. R. C. Young, Dr. A. P. Hancuff and Dr. E. G. Galbraith.—George W. Cooley, executive secretary.

The following programs were presented by the Academy during February:

February 3—General Meeting. "Oxygen Therapy", by Dr. Walter M. Boothby, Rochester, Minn.

February 10—Section of Pathology, Experimental Medicine and Bacteriology. "Cardiac and Nephritic Patients as Surgical Risks", by Dr. Maurice A. Schnitker.

February 17—Medical Section. "Cytolytic Functions of the Spleen in Relation to Blood Diseases", by Dr. Bruce K. Wiseman, Columbus.

February 24—Surgical Section. "Discussion of Pathology of Skin Cancer", by Dr. T. L. Ramsey; "Treatment of Advanced and Neglected Cancers of the Skin", by Dr. John T. Murphy.—Bulletin.

SANDUSKY

At a meeting of the Sandusky County Medical Society, Thursday night, January 26, at the Old Elm Tearoom, Sandusky, Dr. Frederick P. Osgood and Dr. Max T. Schnitker, Toledo, discussed "Surgical and Medical Aspects of Abdominal Diseases".—News clipping.

SENECA

Dr. F. G. Maurer, Lima, spoke on "Clinical Aspect of the Common Cardiac Arrythmia", at a meeting of the Seneca County Medical Society, Thursday evening, February 9, at the Shawhan Hotel, Tiffin.—Edmund F. Ley, M.D., secretary-treasurer.

WOOD

"The Enlarged Prostate—Medical and Surgical Aspects", was the subject discussed by Dr. J. A. Magoun, Toledo, at a dinner meeting of the Wood County Medical Society, Thursday evening, February 9, at the Woman's Club, Bowling Green.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

A demonstration of blood transfusion and blood banking was made by a representative of the American Hospital Supply Corporation at a meeting of the Ashtabula County Medical Society, Friday night, February 3, at Ashtabula General Hospital.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during February:

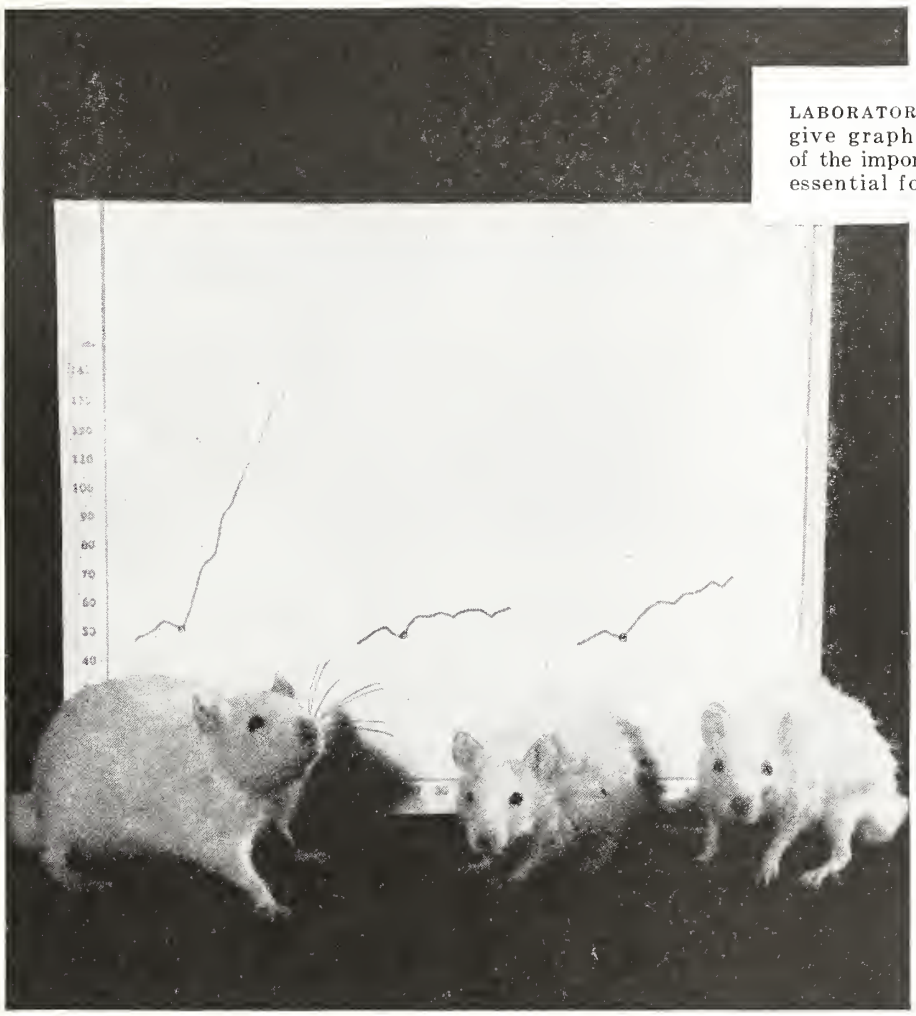
February 3—Clinical and Pathological Section. Presentation of a case for diagnosis in a clinical pathological conference conducted by the staff of Mt. Sinai Hospital.

February 8—Practice of Medicine Section. "Pneumococcus Pneumonia: Serum Therapy", by Dr. James M. Ruegsegger, Cincinnati; "Pneumococcus Pneumonia: Chemotherapy", by Dr. M. A. Blankenhorn, Cincinnati.

February 10—Experimental Medicine Section.

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and Cleveland Section of the Society for Experimental Biology and Medicine. "The Relation of Vaginal pH to Ovulation", by Dr. T. T. Zuck and David R. L. Duncan, Ph.D.; "Diagnosis of Pregnancy With the Aid of a Reducing Substance Present in Urine During Pregnancy", by Donald E. Bowman, Ph.D.; "Chemotropism of Human Eosinophilic Polymorphonuclear Leucocytes", by Dr. E. S. Ingraham and Dr. W. B. Wartman; "The Nature of Deficiency in Pernicious Anemia", by Dr. R. W. Heinle and Dr. F. R. Miller; "Application of a New Constant Pressure Flow Meter to the Study of the Variable Relationship Between Differential Pressure Head and Blood Flow in a Coronary Artery", by Dr. H. D. Green and D. E. Gregg, Ph.D.

February 13—Pediatric Section. "Congenital Carcinoma of the Thymus", by Dr. J. W. Epstein and Dr. P. A. Wasserman; "Fever Therapy in Gastro-Intestinal Hyper-Excitability of Infants". by Dr. H. J. Gerstenberger.

February 15—Industrial Medicine and Orthopedic Section.—"Bone Cysts of the Humerus", by Dr. A. W. Tramer; "Industrial Dermatosis", by Dr. Benjamin Levine; "Osteo-Arthritis of the Spine; Its Cost to Industry", by Dr. L. E. Papurt; "Non-Union of Femur Following Smith-Peterson Nailing", by Dr. Walter G. Stern; "Treatment of Erb's Palsy", by Dr. R. S. Reich.

February 17—Regular Academy Meeting. "Silicosis", by Dr. LeRoy U. Gardner, director of the Saranac Laboratory for the Study of Tuberculosis, Saranac Lake, N. Y.—Bulletin.

ERIE

Dr. Harry G. Sloan, Cleveland, spoke on "The Pros and Cons of State Medicine" at an intercounty meeting of physicians from Huron, Ottawa, Seneca and Erie counties, sponsored by the Erie County Medical Society, Wednesday night, January 11, at the Hotel Rieger, Sandusky.—News clipping.

LORAIN

At a meeting of the Lorain County Medical Society, Tuesday afternoon, February 14, at the Elks' Club, Elyria, Dr. Harold N. Cole, Cleveland discussed "Dermatitis Medicamentosa".—L. H. Trufant, M.D., secretary.

MEDINA

Dr. A. S. McCormick, Akron, spoke on "Observations, Theories and Practices Pertaining to Anesthesia", at a meeting of the Medina County Medical Society, Thursday afternoon, January 19, at the Evanon, Wadsworth.—News clipping.

Sixth District

(COUNCILOR: WM. M. SKIPP, M.D., YOUNGSTOWN)

ASHLAND

The Ashland County Medical Society held its regular monthly meeting, Friday, February 10. Following dinner at the Ashland Country Club, Dr. Harold Feil, Cleveland, gave a most interesting and instructive talk on "Modern Diagnosis of a Cardiac Case", including some recent advances in therapy. Dr. Wm. M. Skipp, Youngstown, Sixth District Councilor, was present at the meeting.—H. Wayne Smith, M.D., secretary.

MAHONING

A symposium on tuberculosis was presented at a meeting of the Mahoning County Medical Society, Tuesday evening, February 21, at the Youngstown Club. The speakers were: Dr. R. R. Morrall, "Tuberculosis of Bones and the Joints"; Dr. E. C. Baker, "X-Ray Diagnosis of Tuberculosis"; Dr. Joseph Keogh, "Collapse Therapy of Tuberculosis".—C. A. Gustafson, M.D., correspondent for *The Journal.*

PORTAGE

Alfred Reich, B.S., chief of the department of bacteriology and serology, Cleveland Clinic, demonstrated the importance of laboratory findings at a meeting of the Portage County Medical Society, Thursday evening, February 2, at Robinson Memorial Hospital, Ravenna.

The society voted to instruct its delegate to vote "Yes" on the proposed amendments increasing the state dues from $5 to $7, and on the redistricting of the state.—E. J. Widdecombe, M.D., secretary.

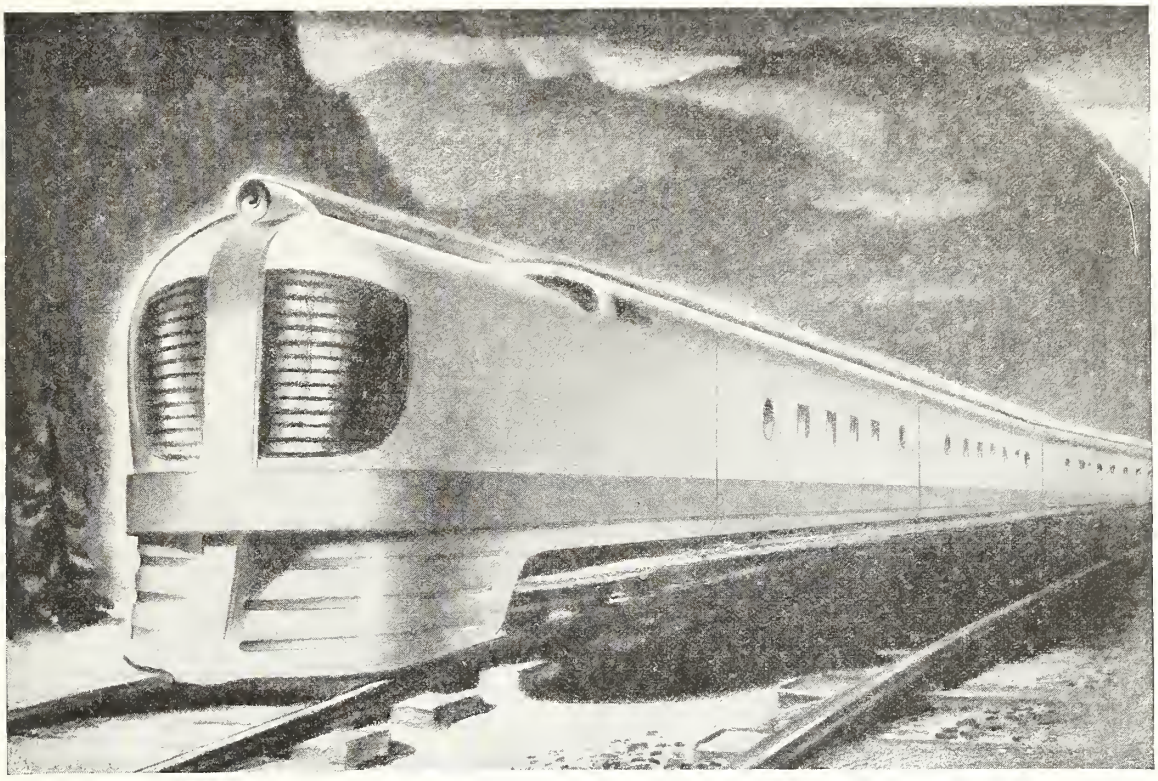
RICHLAND

At a meeting of the Richland County Medical Society, Thursday, January 26 at Mansfield, a public relations committee was appointed consisting of Dr. W. E. Wygant, Dr. F. J. Heringhaus, Dr. L. C. Nigh, and Dr. C. R. Damron, president of the society. The purpose of the committee is to make the public more familiar with the viewpoint of the medical profession on medical problems, through the furnishing of articles to the local newspapers and providing speakers to discuss medical-social relations, especially socialized medicine before lay groups. The society adopted a list of recommendations for the consideration of the county commissioners in regard to tuberculosis patients. The proposed $2 increase in state dues and change in the councilor districts was approved.

Dr. Walter G. Stern, Cleveland, spoke on "Estimation of Physical Disability Following Injury", at a meeting of the society at Mansfield General Hospital, Thursday afternoon, February 16.—L. D. Bonar, M.D., secretary.

STARK

Dr. Walter L. Palmer, associate professor of medicine, University of Chicago School of Medicine, spoke on "The Treatment of Benign Disorders of the Gastro-Intestinal Tract", at a meeting of the Stark County Medical Society, Thursday evening, February 9, at the Elks' Club, Can-



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ton. Dr. Palmer also broadcast over Station WHBC, Canton, from 7:45 to 8:00 the same evening, on the subject "Stomachache".—Clair B. King, M.D., secretary.

SUMMIT

"The Progress of 1938" was the subject of the program presented at a meeting of the Summit County Medical Society, Tuesday evening, February 7, at the Mayflower Hotel, Akron. Speakers, and the specialties which they represent, were: Dr. E. L. Voke, roentgenology; Dr. T. L. Bliss, medicine; Dr. W. T. Bucher, surgery; Dr. H. H. Klingler, gynecology and obstetrics; Dr. R. H. Cather, eye, ear, nose and throat.—Bulletin.

Seventh District

(COUNCILOR: C. W. KIRKLAND, M.D., BELLAIRE)

COLUMBIANA

Dr. Alfred R. Cukerbaum, Youngstown, was the speaker at a meeting of the Columbiana County Medical Society, Tuesday night, January 10, at the Legion Hall, Lisbon. The society was addressed by Dr. E. G. Kuhlman, Wellsville, Tuesday night, February 7.—News clipping.

JEFFERSON

On Thursday, January 26, Dr. William MacLachan, Pittsburgh, spoke at a meeting of the Jefferson County Medical Society, at Steubenville, on "The Treatment of Pneumonia by Chemotherapy".—John P. Smarrella, M.D., secretary.

TUSCARAWAS

Dr. Max Shaweker, Dover, spoke on "Blood Banks" and Dr. Ray D. Schirack, Canton, discussed "Acute Rheumatic Fever in Children", at a meeting of the Tuscarawas County Medical Society, at Dover City Hall, Friday evening, February 10.—News clipping.

Eighth District

(COUNCILOR: E. D. BRUSH, M.D., ZANESVILLE)

FAIRFIELD

Dr. Phillip T. Knies, Columbus, spoke on "Gastroscopy" at a meeting of the Fairfield County Medical Society, Tuesday noon, January 17, at Lancaster.—News clipping.

GUERNSEY

At the bi-monthly luncheon meeting of the Guernsey County Medical Society, Thursday, January 19, at the Berwick Hotel, Cambridge, Dr. M. S. Lawrence, Quaker City, spoke on "Socialized Medicine".

Dr. C. C. Headley was the speaker on Thursday noon, February 2. He discussed "Medical Economics".—O. Reed Jones, M.D., secretary.

MORGAN

Leo F. Ey, chief of the Division of Laboratories, State Department of Health, spoke on "Rabies" at a meeting of the Morgan County Medical Society, Tuesday evening, January 17, at the Hotel Kennebec, McConnelsville.—News clipping.

MUSKINGUM

"The Logan County Plan for Medical Care of Farm Security Clients" was discussed by Russell H. Knopp, of the Columbus office of FSA, at a meeting of the Muskingum County Academy of Medicine, Wednesday evening, February 1, at the University Club, Zanesville.—News clipping.

PERRY

Dr. Fred E. Spangler discussed "Human Rabies", and reported a case of the disease, at a meeting of the Perry County Medical Society, Thursday, February 16, at the Park Hotel, New Lexington.—F. J. Crosbie, M.D., secretary.

WASHINGTON

A well-attended meeting of the Washington County Medical Society was held at the Wakefield Hotel, Marietta, Wednesday evening, February 8. Dr. C. A. S. Williams read a paper on "Cholecystitis", which was fully discussed. Dr. C. R. Sloan gave an interesting case report on an unusual type of skin infection. It was voted unanimously to combine the scientific session with the social session, having a dinner meeting on the second Wednesday of each month.—David Sauer, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

HOCKING

Dr. Louis J. Roth, Columbus, was the speaker at a meeting of the Hocking County Medical So-

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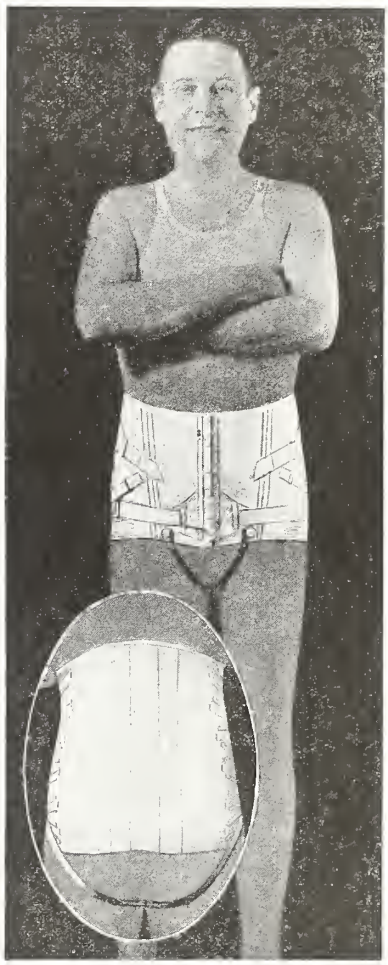
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In writing of low back pain from a surgical standpoint, a leading orthopedist* in a recent article comments thus:—"Practically all patients who come to the clinic with this symptom receive a course of therapy consisting of massage, heat, exercises for the correction of posture and for the reconditioning of stiff, painful muscles, and support in the form of belts, corsets, or braces. The large majority are relieved by these measures. Only those who are not cured or improved, who have persistent or recurring pain, and in whom there is some definite defect or disorder in the structure of the lumbosacral region of the spine are advised to have an operation."

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* SURGERY, Vol. 4, July, 1938

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ciety, Friday noon, January 27, at the White House, Logan.—News clipping.

SCIOTO

Officers of the Hempstead Academy of Medicine of Scioto County for 1939 are: Dr. A. P. Hunt, president; Dr. A. R. Moore, vice-president; Dr. W. M. Singleton, secretary-treasurer; Dr. J. S. Rardin, legislative committeeman; Dr. Dow Allard, delegate, and Dr. J. P. McAfee, alternate, all of Portsmouth.

Dr. J. J. Coons, Columbus, spoke on "Differential Diagnosis and Treatment of Heart Pain", at a meeting of the society, Monday evening, February 13, at Portsmouth General Hospital.—W. M. Singleton, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

CRAWFORD

"Plastic Surgery" was discussed by Dr. Donald M. Glover, Cleveland, assistant clinical professor of surgery, Western Reserve University College of Medicine, at a meeting of the Crawford County Medical Society, Monday evening, February 6, at the Elks' Home, Bucyrus.—O. R. Kackley, M.D., secretary.

DELAWARE

Dr. Frank J. Lacksen, Columbus, gave a very interesting talk, illustrated by lantern slides, on "The More Common Skin Diseases", at a meeting of the Delaware County Medical Society, Tuesday evening, January 24, at Bun's Restaurant, Delaware.—M. S. Cherington, M.D., secretary.

FRANKLIN

Officers of the Columbus Academy of Medicine for 1939 are: Dr. George I. Nelson, president; Dr. Russel G. Means, president-elect; Dr. Richard I. Brashear, secretary-treasurer; legislative committee—Dr. John M. Thomas, Dr. I .B. Harris, Dr. Claude S. Perry, Dr. W. B. Merrill and Dr. E. J. Emerick; public relations committee—Dr. R. W. Kissane, Dr. G. J. Heer, Dr. Joseph Price, Dr. J. H. J. Upham and Dr. E. B. Junkermann; medical economics committee, Dr. Carl A. Hyer, Dr. B. W. Abramson, Dr. E. T. Kirkendall, Dr. J. V. Horst and Dr. D. J. Whitacre; delegates—Dr. Harris, Dr. Upham, Dr. Leslie L. Bigelow, Dr. Thomas, Dr. George T. Harding, Dr. Emerick; alternates—Dr. J. M. Dunn, Dr. H. E. LeFever, Dr. John H. Mitchell, Dr. John E. Brown, Jr., Dr. R. C. Obetz and Dr. Link M. Murphy.—S. R. Mauck, executive secretary.

The Academy presented the following programs during February:

February 6—"Practical Applications of Vitamin Therapy", by Dr. C. G. Wiegand, department of professional relations, Eli Lilly and Co., Indianapolis, Ind.

February 20—"Recent Advances in Prognosis and Treatment of Nephritis", by Dr. Lee E. Farr, director of nephritis service, Rockfeller Hospital, New York City.

February 27—Section in General Hospital. "Treatment of Chest Conditions", by Dr. Louis Mark; "Medical Treatment of Peptic Ulcers", by Dr. W. Eugene Masters.—Bulletin.

MORROW

Dr. C. G. Smith, Marion, gave a very instructive paper on "Care of the Cervix in Confinement" at a meeting of the Morrow County Medical Society, Tuesday, February 14, at the Globe Hotel, Mt. Gilead.—T. Caris, M.D., secretary.

ROSS

"Pelvic Diseases", was the subject discussed by Dr. William P. Smith, Columbus, at a meeting of the Ross County Academy of Medicine, Thursday evening, February 2, at the Warner Hotel, Chillicothe.—News clipping.

Columbus—Officers of the Columbus Bureau of Medical Economics are: Dr. Elmer G. Horton, president; M. H. Stukey, D.D.S., vice-president; Dr. Russel G. Means, secretary-treasurer, and Stanley R. Mauck, executive director. Dr. Jonathan Forman, Dr. Judson D. Wilson, Dr. Horton and E. N. Hoopman, D.D.S., are new members of the Board of Trustees.

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Modern Surgical Technique. By Max Thorek, M.D., prof. clinical surgery, Cook County Graduate School of Medicine; attending surgeon, Cook County Hospital; surgeon-in-chief, the American Hospital; consulting surgeon, Municipal Tuberculosis Sanitarium. Price, $33.00. pp. 2045, with 2174 illustrations. *J. B. Lippincott Company, Philadelphia,* 1938. The author of this work needs no introduction to the surgical world. Besides being a master of surgical technic, his long and fruitful clinical experience and numerous contributions to surgical literature entitle him to speak with authority on surgical problems, and one feels that he is exceptionally well qualified to present a treatise on modern surgical technic.

These three volumes fill a long felt need. They will appeal to the well trained surgeon, who not infrequently feels the necessity of a rapid and authoritative survey of specific points of technic, as well as to the less experienced surgeon, who needs constant guidance and elucidation of the various steps of operative procedures. To these the three volumes will be invaluable. The first volume begins with a brief, up-to-date exposé of the fundamentals in operating room technic and of the various forms of anesthesia, regional and local. In the discussion of intratracheal insufflation one misses mention of the Magill catheter, which can be introduced through the nose as well as through the mouth, and constitutes an easy method of laryngeal intubation. The rest of the first volume is dedicated to surgery of the head and neck, and to plastic surgery. Brain surgery, as well as ophthalmologic surgery, is also included. In dealing with thyroid surgery the author mentions "boiling water injections". This reviewer is of the opinion that injections of boiling water or of any other destructive or sclerosing agent are to be avoided.

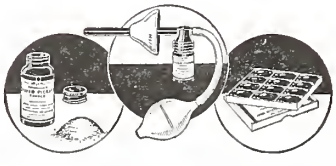
The second volume is devoted to surgery of the nerves, blood vessels, bones, breast and chest. In the description of the technic of cervical sympathectomy, and especially of ganglionectomy, the author has been, perhaps, a little brief. The removal of the superior cervical sympathetic ganglion, when performed with or without the removal of the cervical sympathetic chain, requires accurate anatomic knowledge and a systematized surgical procedure, if one wishes to avoid misfortune. The same holds true for

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stellectomy. The third volume is devoted to abdominal, genito-urinary and gynecologic surgery. The thorough handling of the subject is outstanding. Thorek discusses the problems with authority, since these particularly constitute his life-long interest. His conception of the surgical treatment of the gall bladder by electrocoagulation is a highly valuable contribution, as it has reduced the mortality to an extremely low level.

The general impression which one gains in perusing Thorek's three volumes on surgical technic is that he has endeavored to present the steps of various operations in a clear, short and readable manner. In this task he has well succeeded. The illustrations are in most instances excellent. One is impressed by the obvious effort made by the writer to give credit to whom it is due, a point which is too easily overlooked by some writers. The work is a timely contribution of very high value and should be on the book shelves of every one doing surgery.—André Crotti, M.D.

Doctor at Timberline. By Charles Fox Gardiner, M.D. *Caxton Press, Caldwell, Idaho,* $3.00. Manufactured with perfect craftsmanship and illustrated with pen sketches by Bob Hall, this is the story of fifty years of practice from the early times in the Colorado mountain wilds. Veterinarian, dentist, and spiritual adviser to his people were the added tasks of the pioneer physician. These reminiscences deserve a place in your library.

Practical Otology. By Morris Levine, M.D., Columbia. Second edition. *Lea and Febiger, Philadelphia,* $5.50. The work is concise, clear and covers the subject in a practical way which recommends this volume to the student and the practitioner. The chapters on Petrositis, Allergy, Meningitis, and other important otitic subjects are especially good.—Hugh Gibson Beatty, M.D.

Management of the Sick Infant and Child. By Langley Porter, M.D., and William E. Carter, M.D. *Mosby, St. Louis,* $10.00. This excellent volume handles this subject in a different way. The chapter on Methods and Procedure is alone worth the price of the book. Management of the Sick Infant and Child should be on the shelf of every hospital library where residents may refer to its chapter on Methods. The general practitioner as well as the trained pediatrician should not be without it.—S. D. Edelman, M.D.

Injection Treatment of Varicose Veins and Hemorrhoids. By H. O. McPherson, M.D., F.A.C.S. and James Anderson, M.D., F.A.C.S. *F. A. Davis Company, Philadelphia,* $4.50. This volume is a very excellent review of the anatomy, the embryology, differential diagnosis, pathology and treatment by injection of varicose veins. The material

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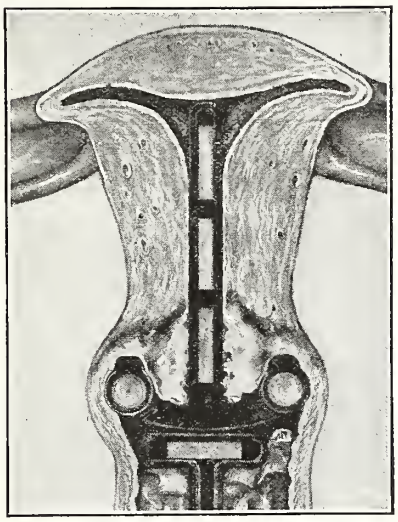
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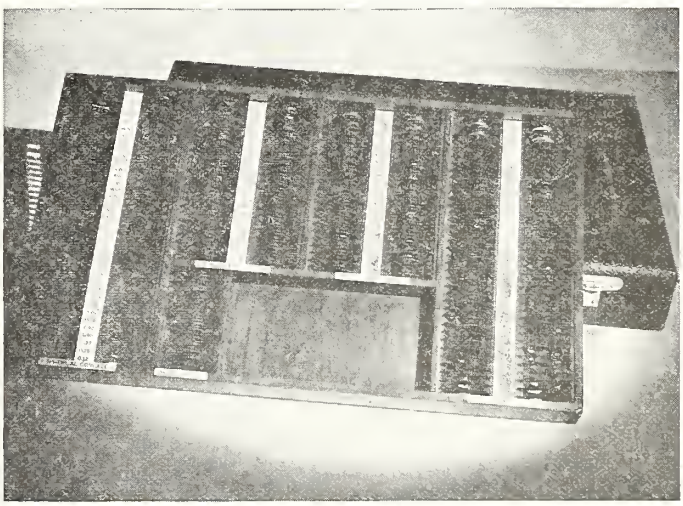
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is well handled, the descriptions clear and concise, easily understandable. I feel that the book is worthy of a place in any physician's library.—George B. Watson, M.D.

The New International Clinics, Edited by Geo. Morris Piersol, M.D., September, 1938. This volume comprising 20 contributions, has a symposium on the use of sulphanilimide, and a review of pyelitis in pregnancy. Wilder's article on adrenal insufficiency is excellent. Shattuck points out that Landuy's original case of paralysis was probably beri beri. Calcareous aortic stenosis is well described as is dystrophia myotonica. The dangers of lipoid pneumonia from intranasal medication is timely. There is a splendid article on Dermatitis from Wearing Apparel.—Robert C. Kirk, M.D.

Behind the Syphilis Campaign. Pamphlet No. 24 of the *Public Affairs Committee, Inc., 8 W. 40th St., New York*, $1.00. The purpose of this thirty-two page pamphlet is to give physicians, health officers, nurses and leaders in public health education the facts on the anti-syphilis campaign and it serves its objective very satisfactorily.

Attaining Manhood. By George Corner, M.D. *Harpers, New York*, $1.25. Many books have been published to serve as the basis of a talk with boys about sex. It is the reviewer's personal opinion that the best approach is to leave such books where the boy may read it if interested. This, the latest of such books, has much to recommend it, not the least of which is its distinguished author, the professor of anatomy in the School of Medicine of Rochester University. It is a straightforward presentation of the subject from the viewpoint of a scientist who wrote it primarily for his own son.

Care of Infants and Children. By Harry Lowenburg, Sr., Philadelphia; Whittlesey House Health Series. Morris Fishbein, M.D., Editor. *McGraw-Hill, New York*, $2.50. In the writing of books intended to give laymen precise information just how to do things medical, there is always a grave danger that the author will overshoot or undershoot the mark. Many books on infant care do just this. Some attempt too much and some are too sketchy to be of use. This well known pediatrician has hit his mark exactly with a well written book that tells the mother just how to do but not when, and why. As such every mother will find almost daily use for it.

Taber's Medical Dictionary. By Clarence Wilbur Taber and a staff of specialists. *F. A. Davis, Philadelphia*, $3.00. We are presented here a medical dictionary, including a Digest of Medical Subjects, which differs from all others. Although

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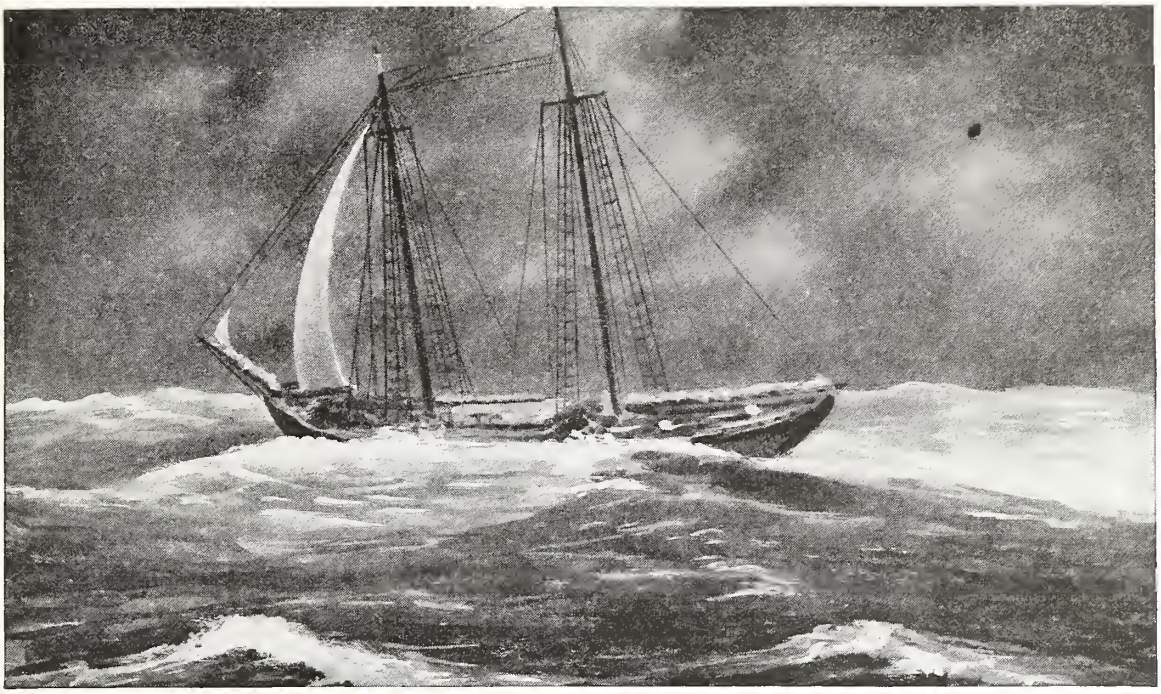
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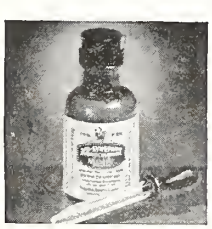
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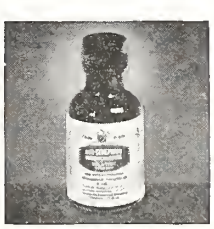
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it is small, it is in no sense an abridged work condensed from a larger book. Every definition has been written to fit the needs of this volume. It is a digest of subjects rather than a list of definitions. Every physician and every stenographer handling medical dictation will find it most useful and handy to consult.

A Textbook of Pathology. Edited by E. T. Bell, M.D. *Lea & Febiger, Philadelphia,* $9.50. Five contributors under the masterly direction of Professor Bell of the University of Minnesota, have produced what your reviewer's experience of ten years teaching of the subject leads him to believe is one of the best, if not the best, student text of pathology. It is uniform in method, comprehensive, and effective.

Life and Letters of Fielding H. Garrison. By Solomon R. Kagan, M.D *Medico-Historical Press,* 40 Harrison Ave., Boston. $3.00. Fielding Garrison, who is known to most of you for his **Introduction to the History of Medicine,** died in 1935. The first biography has appeared and it is certain that such a worthy man will be accorded many more. The life of the subject is brief and the bulk of the book is made of his letters. His correspondence with Dr. E. C. Streeter, some 75 letters in all, supply the life blood to the book.

The 1938 Year Book of Physical Therapy. Edited by Richard Kovacs, M.D., director of Physical Therapy, New York Polyclinic. *The Year Book Publishers, Chicago,* $2.50. Yearbooks as annual reviews of progress have a very definite place in the life of every physician. With this in mind such a book has been written for all who are interested in any way in physical therapy. The volume is complete in its treatment of technique and its application to disease.

The Doctor In French Drama—1770-1775—By Christen E. Peterson. *Columbia University Press, New York,* $2.25. Throughout the ages the doctor has been a familiar figure in literature. Most of us like to read of these characters as entertainment and also because they give a clear picture of the contemporary state of medicine. Miss Petersen has selected a field in which little has been touched with the exception of Moliere's plays. It is therefore a valuable addition to any library, especially that of a physician.

Keats As Doctor and Patient. By W. Hale-White. *Oxford Press, New York,* $2.00. The author, the famous physician to Guy's Hospital, presents the true story of the last nine years of the poet's life during which he studied medicine for five and was mortally ill for one. In it are corrected several oft repeated erroneous impressions.

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[1] *Jl. A. M. A.* 111:2175 (Dec. 10), 1938.

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News Notes

Ada—Dr. Harry Wain, of Ohio Northern University, is taking a postgraduate course in public health at the University of Michigan. During his absence, Dr. Vernon A. Noble, Lima, is acting as university physician.

Akron—An address on "Health" was made by Dr. M. D. Ailes, city health director, at a recent meeting of the Summit County Federation of Democratic Women.

Alliance—Dr. H. L. Weaver fell on the ice January 28, breaking both forearms.

Ashtabula—Officers of the Ashtabula General Hospital Staff are: Dr. A. M. Mills, president; Dr. Noble F. Crandall, vice-president; Dr. R. S. Grimmett, secretary-treasurer, and Drs. A. J. Pardee, R. B. Wynkoop and J. H. Park, members of the executive committee.

Canton—Dr. C. N. Clark, president of the Stark County Medical Society, gave a dinner for officers and chairman of standing committees of the society, at the Onesto Hotel, February 4. Plans were made for the society's activities during the year.

Chardon—Dr. A. W. Behm spoke on "The Historical Development of Blood Transfusion" at a recent meeting of the Kiwanis Club.

Cincinnati—Some of his experiences as a football official were told by Dr. Fred W. Heinhold at a recent meeting of the Cheviot-Westwood Kiwanis Club.

Cleveland—Dr. Victor C. Laughlin has been certified by The American Board of Urology, Inc.

Columbus—A recognition dinner honoring the new officers of the Columbus Academy of Medicine was recently given by the Indianola M. E. Church. Speakers included Dr. George I. Nelson, president; Dr. Russel G. Means, president-elect and Dr. Leslie L. Bigelow, a past president of the Ohio State Medical Association.

Dayton—Dr. D. A. Crist, chief of staff, Good Samaritan Hospital, was elected president of the board at the recent annual banquet of officials of the hospital. He succeeds Dr. M. R. Haley, who becomes a member of the board. Other officers are: Dr. Jerome Hartman, vice-president; Dr. Richard Hochwalt, secretary, and Drs. A. W. Carley and J. K. Hoerner, members of the executive board. Dr. John A. Caldwell, Cincinnati, spoke on "Orthopedic Surgery".

Delaware—Dr. George T. Blydenburgh, director of the student health service at Ohio Wesleyan University, has been appointed to the National Education Committee of the American Social Hygiene Association.

East Liverpool—Dr. Arthur L. Watkins is the new city health commissioner.

Greenville—Dr. W. D. Bishop, health com-

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SOLOMON, P.; MITCHELL, R. S. AND PRINZMETAL, M.: The Use of Benzedrine Sulfate in Postencephalitic Parkinson's Disease —*J. A. M. A.*, 108:1765, May 22, 1937.

FINKELMAN, I. AND SHAPIRO, L. B.: Benzedrine Sulfate and Atropine in Treatment of Chronic Encephalitis—*J. A. M. A.*, 109:344, July 31, 1937.

DAVIS, P. L. AND STEWART, W. B.: The Use of Benzedrine Sulfate in Postencephalitic Parkinsonism, *J. A. M. A.*, 110:1890, June 4, 1938.

MATTHEWS, ROBERT A.: Symptomatic Treatment of Chronic Encephalitis with Benzedrine Sulphate—*Am. J. Med. Sci.*, 195:448, April, 1938.

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missioner of Darke County, spoke on "Syphilis" at a recent meeting of the Versailles Lutheran Brotherhood.

Hamilton—The following members comprise the new executive board of Mercy Hospital: Dr. Mark Millikin, Dr. Corliss R. Keller, Dr. Harry M. E. Lowell, Dr. Dan M. Skinner, and Dr. W. A. Davis.

Ironton—Dr. Will Payne, health commissioner of Lawrence County, has been reappointed for two years.

Lancaster—A demonstration of X-ray was made by Dr. Ralph H. Smith at a recent meeting of the Hocking Valley Camera Club held at Lancaster Municipal Hospital.

Lewisburg—Dr. E. P. Trittschuh was reelected president of the Preble County Board of Education.

Lima—"Why We Laugh" was the subject discussed by Dr. P. I. Tussing at a recent meeting of the Ada Rotary Club.

Lorain—Speakers at a recent meeting of the B.P.O.E. Lodge in honor of local physicians, were: Dr. Valloyd Adair, Dr. F. A. Newhall and Dr. Robert A. Stack.

Mansfield—Dr. Henry T. Stiles spoke on "X-Ray" at a recent meeting of the Social Workers' Club.

Middletown—Dr. Leon Goldman, Cincinnati, lieutenant in the Medical Reserve Corps of the U. S. Army, spoke on "Chemical Warfare and Teratment of Gas Casualties", at a recent meeting of the Butler County Chapter of the Reserve Officers' Association.

Millersburg—Dr. N. P. Stauffer, Killbuck, is the new chairman of the Holmes County Board of Health. The board re-elected Dr. J. C. Elder county health commissioner for two years.

New Philadelphia—At a recent meeting of the Schoenbrunn Grange, Dr. Wm. E. Hudson spoke on "Tuberculosis Education".

Rittman—Dr. E. R. Alexander was recently installed as the ruling elder in the Milton Presbyterian Church.

St. Marys—"The Old Medicine Man" was the subject of talk made by Dr. Harry S. Noble at a recent meeting of the Wapakoneta Rotary Club.

Springfield—Two Columbus physicians discussed "Shall We Have Government-Controlled Health Service?" at the Community Forum, February 23. Dr. A. Henry Dunn spoke in favor of socialized medicine and Dr. Jonathan Forman in opposition to it.

Youngstown—Dr. William M. Skipp and Dr. Walter B. Turner have been appointed advocates of the American College of Surgeons.

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JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor* ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

Diabetes

HENRY J. JOHN, M.D.

THE finding of glycosuria in a patient offers a presumptive evidence of diabetes. One should consider the case as such until the contrary can be proved. On the other hand it is most unfair to any patient to consider him as a diabetic and not to investigate the problem further for 66 per cent of all glycosurias are non-diabetic. (Table 1.) One can readily see the tremendous error involved in stopping at this point. The glycosuria thus found may be nothing more or less than a low renal threshold, a kidney which is quite permeable to glucose, or it may be due to the postprandial rise of blood sugar which thus got above the renal threshold.

This is a point which needs much emphasis for in all diabetic work I find that this is a most common stumbling block.

PREGNANCY GLYCOSURIA

When glycosuria is found in a woman in the first six or seven months of pregnancy, it is a true glycosuria. Lactosuria appears first at the end of pregnancy or during lactation. Such a finding should therefore not be disregarded but one should go a step further and determine whether or not one is dealing with diabetes or merely a non-diabetic glycosuria due to a low renal threshold. The first requires treatment, the second not. If diabetes is present and the condition disregarded or undiagnosed, then by the end of pregnancy one is apt to deal with a fairly advanced case of diabetes to say nothing of any intercurrent infection in the interim which might bring on acidosis and even coma with likely a spontaneous abortion or the death of the fetus. The incidence of glycosuria in pregnancy has been reported in the literature ranging from 0.8 to 50 per cent. The average renal threshold 123 mg. per cent.[1]

The Author

● Dr. John, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1916; member American College of Physicians; Central Society Clinical Research, Association for Study of Endocrine Secretions; visiting physician Lakeside Hospital private service.

GLYCEMIA

The next step which is usually followed upon the finding of glycosuria is the taking of a fasting blood sugar the next morning. If this is high the diagnosis of diabetes is confirmed; if normal, then diabetes is considered as ruled out. But is it? A frank case of diabetes will show a fasting hyperglycemia. A mild case or an early case will not until much later. Thus these latter cases are missed and left to drift unconsciously into a frank diabetic state. We must remember, however, that it is the early diagnosis and the early treatment which counts, when we can do most for the patient for thus we prevent the further degeneration of the insulogenic apparatus. The dilly-dally attitude with a diabetic problem takes the best chances of a good result away from the patient. Whereas early in the game we can carry a patient, once straightened out, on a mildly re-

Read before the Medical Section, Toledo Academy of Medicine, November 18, 1938.

stricted diet, later on we have to use larger doses of insulin in addition to diet.

INSULIN

The time to use insulin to the best advantage to the patient is early, when diabetes is first discovered, at the time when not too much damage

TABLE 1.

GLYCOSURIAS, DIABETIC AND NON-DIABETIC
(John)

Glycosurias	Total cases	Tolerance Curve Diabetic, %	Tolerance Curve Non-diabetic, %
All cases of Glycosuria	337	63.	37.
Glycosuria disc. on admission	138	66.	33.
Glycosuria disc. prev. to admission	199	60.3	39.6
Glycosuria found on Life Ins. examination	61	62.2	37.3
Hyperthyroidism (mostly glycos.)	239	36.	63.5
Pregnancy Glycosuria	21	57.2	42.8

to the pancreas is present. By putting the pancreas so to speak to a "physiological rest" we give it a chance to resume much of its function and put out more insulin. And the reason for it is that in the beginning we deal with a state of affairs which is something like this:

1. A lot of islands which still function normally.
2. Some islands which are destroyed—thus out of our consideration.
3. A lot of islands, which though not destroyed are not functioning, they are diseased, swollen and vacuolated and thus unable to perform their function.

It is this third group that we are interested in mostly, to give them rest and thus a chance to go back to normal and again function like normal islands. Everything possible should be done to preserve this group and get it to normalcy, as much as we can. The progress of the patient, the steadily decreasing dosage of insulin is an index to our gaining of ground in this respect.

We have fat diabetics and we have lean diabetics. On the whole the fat diabetic is apt to be the milder of the two although there is no absolute rule about it. He too can become severe and as a result of this become a lean diabetic later, not because he is not taking enough to eat, but because he can not burn up, utilize that which he eats. This of course means an inadequate control of his diabetic state. It is further a good policy to reduce fat diabetics to a near normal weight whenever possible. They do better and make a better progress. Often just the reduction of weight of an obese diabetic in itself helps to control the diabetic condition. And in contrast, the diabetic who is much underweight we try to build up to a normal weight standard.

This alone then shows that here we have right at the beginning two contrasting problems which require an entirely different type of management. For the fat diabetic a low caloric diet and for the lean diabetic a high caloric diet.

One of the most common statements one hears from a patient when he is first told he has diabetes, is: "Doctor, I'll do anything, just so I don't have to take insulin." I have often wondered just why a patient has such a marked abhorrence of the hypodermic needle. The whole thing is a psychic problem, but just what is it that has created this psychic state? Most patients have been in a hospital, some time or another, for operation or for medical treatment. Could it be that the hypodermic injections which they received then were so badly performed that it has created in their minds a fear of them? I do think that this is one of the problems for I have seen hypodermic injections administered by nurses in such a manner that to one accustomed to a finesse of hypodermic technique, they were nothing less than abhorrent. A big needle, a dull needle, a large quantity of solution injected and the necessary pain accompanying it. Thus we can not blame the patient if, in the past, he has had some such experience. We too would feel that same way if we did not know that it could be corrected and simplified. At best, however, hypodermic injections are not a picnic, but properly done, they do cause the minimal amount of discomfort. A needle not more than half inch in length, 27 or 28 gauge, always a sharp needle, a concentration of insulin so that somewhere near one-quarter of a cubic centimeter is given, will soon dispel all the fear and anxiety on the patient's part. I have dwelt on this apparently so simple a point, because it is so frequently not given enough thought by the medical man and it deserves thought and consideration. It is one thing when a patient goes to the hospital for an operation when only a few hypodermics have to be resorted to, for thus, even if clumsily administered, the suffering resulting therefrom does not last long. But it is another thing in the case of a diabetic who will have to use one or more hypodermic injections a day for months and even years. Here we have to give thought to this procedure to save the patient as much as possible and preserve areas fit to give injections into. This point really can not be stressed too much.

TREATMENT BY DIET

Many patients can be treated by diet alone; in fact all patients can be treated by diet alone. We have before us three groups of patients: the

mild diabetic, the moderately severe diabetic and the severe diabetic. The pancreas of each one of these three groups is still secreting some insulin and if we cut down the diet to the amount of his available insulin, we can control his diabetes. In this manner we had to treat diabetes in the pre-insulin era and we can still duplicate it. Years ago, our predecessors too used the horse and buggy; how many horse and buggy doctors do you see today? That's the whole answer in a general way. As I have already stated, the mild diabetic, the old person, the arteriosclerotic diabetic can often be managed on a mildly restricted diet alone. If so, then all is well and we can proceed along those lines and with a periodic check up make sure that he is controlled on such a routine. If he can be, then this is the easiest way out of the difficulty.

Now take the severe diabetic: here too we can reduce the diet to the amount of his endogenous insulin available. It can be controlled in this manner. Let us say that in order to control his diabetes we have to reduce the diet down to some 1,200 to 1,400 calories. Any patient can stick this out for a while and keep on losing weight and get progressively weaker. But how long will such a patient stick to such a severe routine? I think that you will find that very few indeed will do so and eventually will break the routine, get disgusted and discouraged by it and thus all the previous work and all the previous expense has been for nothing and you will have to start all over with proper diet and insulin, the thing which should have been done right at the beginning. This then is in the nutshell the whole principle of insulin therapy. It is much better to start a patient right from the beginning on an adequate diet and make up his insulin deficit with exogenous insulin administration and have the patient happy and contented and able to carry on his work, than to dilly-dally with starvation diet, to throw him down into the depths of discouragement and then have him either throw overboard all routine and drift into coma or else to have to do it all over in a proper manner.

HOSPITALIZATION

The place to work out the diabetic's problem at the beginning, is the hospital. Here we have all the facilities, the laboratory, the dietitians, the nurses and consequently one can work with speed and precision. In seven to fourteen days most any diabetic problem can be settled accurately. Then too there is the psychology of the procedure. By placing a patient in a hospital, the patient sees that you consider his problem as a serious incident and consequently he too begins to consider his problem in a serious light. He is subjected to a certain expense and very few people, once they had to invest in their own health, will just chuck it later, but rather will try to justify this investment. And this means a better cooperation on the part of the patient, the thing which is so necessary in diabetic work. Furthermore, while in the hospital, the patient is given a Diabetic Manual, he begins to read it and to understand the underlying principles of his disease, the reason for the therapy, he begins to take an intelligent interest in all that is going on and is done for him, he gets dietetic instruction, he learns how to administer the insulin; if fortunate enough he may see another patient brought in in coma or with a gangrene of leg, and these things will make a greater impression on him than a whole week's talk or lecturing. From that time on he will want to control his diabetic condition and keep out of difficulties and complications. In such instances the hospitalization has been the greatest school for him imaginable.

Now, for the past three years, the problem of the diabetics has become much easier. Since the discovery of protamine insulin and now with its improvement in the new protamine zinc insulin the task has been much lightened. Whereas from two to four injections a day had to be given, now, in the great majority of cases one injection a day of protamine zinc insulin suffices and usually controls the blood sugar level better than three or four did previously.[1] This has been a great boon for the diabetics and it certainly has simplified their problem. No one now need object to one injection a day, for after all, that is a small price to pay for good health. Would that we could control many other conditions as easily!

COMPLICATIONS

With insulin and without insulin, we still have the diabetic complications to face. However, the encouraging feature is the fact that we do not have nearly so many. Years ago, diabetic complications, diabetic emergencies were frequent; now, I rarely see a diabetic coma. This is a great advance and I feel it is due to a better control and better management of diabetics at large. Patients still drift into acidosis as a result of infections or disregard of routine, for we must bear in mind that an infection in a diabetic is always a serious omen as it usually brings an acidosis rapidly and when acidosis once develops the whole routine is upset. We do not use protamine insulin during infections. It works too slow and we need insulin whose action is more rapid, small and frequent doses so as to counteract the infection and protect the pancreas. Saline hypodermoclysis with 5 per cent of glucose in it is also a necessary measure, for in acidosis, especially with vomiting, the body is dehydrated and needs the replenishment of its liquid and the sodium chloride. Do not try to depend on in-

sulin alone in such a case, for the saline is equally important.

Gangrene is another common complication in diabetes. (Table 2.) This, however, is not due so

TABLE 2.

INCIDENCE OF GANGRENE IN DIABETES

Author	Cases	Gangrene Percentage
John	4,871	2.4
Mayo Clinic	684	2.4
University of Pennsylvania Hospital (before 1923)	355	2.5
Paullin	560	2.6
Joslin	3,000	3.0
Lemann (private cases)	471	5.3
Peter Bent Brigham Hospital	969	7.0
Massachusetts General Hospital	600	9.0
University of Pennsylvania Hospital (since 1923)	845	6.2
Tuoro Infirmary (private cases)	201	10.0
Boston City Hospital	967	11.2
Philadelphia General Hospital	1,305	13.0
Lemann, (charity cases)	439	18.0

much to diabetes itself, but the main underlying cause is arteriosclerosis, thus inadequate circulation, inadequate nourishment of the part. We have dry gangrene and moist gangrene. The dry gangrene is much easier to handle. Elevation, dry heat and leg pump are great assets here. Nature will often make a line of demarcation and the toe may eventually drop off without any surgical interference. Not so in the moist gangrene. This means an infected gangrene and here the use of leg pump is contraindicated. Elevation, dry heat and usually an early amputation are the procedures of choice. Do not delay the amputation until septicemia has taken place, for then the chances for the patient are slim.

Hyperthyroidism is another condition which plays havoc with a diabetic.[1] Fortunately it is infrequent but when it does take place, it certainly is apt to play havoc with the diabetic state. Just recently I had a young girl who was controlled on 15 units of insulin a day. She developed hyperthyroidism and overnight the insulin requirement rose to 150 units a day and stayed at that level. Such patients go quickly into acidosis and one has to work rapidly. There is but one thing to do under such circumstances: the preparation of the patient and then thyroidectomy. Do not make the mistake of Lugolizing such a patient to the point of a marked improvement and discharging him from the hospital, and letting him relapse into the second hyperthyroid state for there is much danger connected with such a relapse. The surgical mortality in such relapses is high.

Pregnancy is another we might say, complication to a diabetic.[1] This we have to deal with now more frequently than we used to, for now, with proper routine and control, the menses which in the pre-insulin era were so frequently absent, are normal and diabetic women are subject to pregnancy. Furthermore, the diabetic children used to die off in the pre-insulin era whereas now they are nearly all living, maturing, getting married. This state of affairs is creating new problems in the diabetic work. The problem which we are facing today with these diabetic youngsters getting married, is, whether or not we will be disseminating hereditary diabetes in the future generations. No one today can answer that problem but it may be a serious problem which will confront the future generations of physicians. We do know the general underlying hereditary laws, namely that if a diabetic married a diabetic all children will be diabetic; if a diabetic marries a non-diabetic in whose family there is no diabetes, there will be no diabetic children; if a diabetic marries a non-diabetic but in whose family there is diabetes one-half of the children will be diabetic; if a non-diabetic marries a non-diabetic but both have diabetes in the family one-fourth of the children will be diabetic. This, however, may not be the whole answer and only the future will settle this problem definitely.

SURGERY IN DIABETES

Surgery on a diabetic patient used to present, in the pre-insulin era, a serious problem. Now, however, it no longer presents such a serious problem and one does not hesitate to operate on a diabetic who is handled by an internist during the interim. Table 3 shows a tremendous decrease

TABLE 3.

SURGICAL MORTALITY IN DIABETES

Effect of Insulin

Author	Mortality Before Insulin Percentage	Mortality After Insulin Percentage	Decrease Percentage
Reed (summary of other authors)	34.04	12.7	64.6
Saunders	62.5	24.5	59.4
Mason	22.0	15.0	31.8
Beardwood	44.0	10.9	75.3
Averages	40.63	16.0	57.8

in surgical mortality in the pre-insulin and post-insulin era. The average decrease of mortality in these two groups has been 57.8 per cent which is a great stride forward. In spite of this, however, the present day figures are quite uneven ranging from 1.2 to 68 per cent mortality, the average being 12.9 per cent. (Table 4.) In time as the surgeons will learn to lean upon the medical man for the handling of the strictly medical problem, we shall see a marked drop in these figures.

I have reported a series of my own diabetics who were operated upon in the past 15 years.[2] The total of operations was 1,273 and the mortality 5.8 per cent. Even this could be lower with a better cooperation on the surgeon's part. Let us look at the statistics of gall-bladder surgery. In a total of 216 cases gathered from the literature, the mortality incidence was 3.3 per cent. (Table 5.)

TABLE 4.
SURGICAL MORTALITY IN DIABETES
With Insulin

Series	Cases	Mortality Percentage
Adams and Wilder	327	1.2
Allan (1930)	288	1.7
Bruce	97	2.1
Lemann	43	2.3
Allan (1931)	218	2.7
Bazin	73	2.7
Judd, Wilder and Adams	667	2.9
Mayo Clinic (combined series from 1921-1932)	7,309	3.3
Eliason (1929-1932)	170	3.5
Eliason (1926)	50	3.6
Menninger	22	4.5
John (1925-1930)	462	4.7
Rabinowitch	130	5.3
Joslin (1923)	69	5.7
John (1920-1937)	1,273	5.8
Joslin (1928-1930)	580	5.9
McKittrick	1,002	7.6
Weeden	12	8.3
John (1921-1925)	35	8.5
Roth	20	10.0
Joslin (1925)	97	10.3
Beardwood	91	10.9
McKittrick and Root	80	11.2
Foster	103	11.6
Petty	31	12.6
Joslin (1927)	322	12.7
Law	15	13.3
Cohen	8	14.0
Joslin (1924)	75	14.6
Joslin (1926)	81	14.8
Mason	60	15.0
Ralli and Standard	96	16.4
Reed	64	18.7
Coller and Marsh	65	24.6
Saunders	14	25.4
Bauman	56	26.7
White	66	28.7
Carp	25	35.0
Eliason and Wright	55	41.8
Apfelbach		68.0
Totals	14,251	12.9

The incidence of gangrene in diabetes is considerable, ranging from 2.4 to 18 per cent. (Table 2). This gangrene as already mentioned is not due primarily to diabetes, but to arteriosclerosis. As a rule the lower the group of diabetics in the economic scale the more the incidence of gangrene. Mortality in amputations runs high, varying from 5 to 65 per cent. (Table 6.) There are many factors which enter into this question, how early or how late the amputation is performed, the condition of the patient at the time, his age, etc.

There is one practical problem in relation to surgery, namely, pain in the right lower quadrant. Such a pain in a non-diabetic, together with the other usual symptoms and findings, usually means appendicitis. Not so always in a diabetic. Severe acidosis may present this symptom which so characteristically simulates acute appendicitis that one must be on his guard. Blood count does not help, as in acidosis the blood is concentrated, the patient more or less dehydrated, thus the count raised and of no value. The thing to do when one is confronted with such a picture is to give 250 to 500 cc. of 10 per cent glucose with 20 to 30 units of insulin intravenously. If the symptoms are due to acidosis they will subside in an hour, if to ap-

TABLE 5.
SURGICAL MORTALITY IN DIABETES
Gallbladder Operations

Author	Cases	Mortality Percentage
Bazin	10	0
Foster	3	0
Joslin	13	0
Lemann	1	0
McKittrick	59	0
Ralli and Standard	2	0
Judd, Wilder, Adams	40	2.5
John	43	4.6
McKittrick	45	8.8
Totals	216	3.3

TABLE 6.
MAJOR AMPUTATIONS IN DIABETES

Author	Cases	Mortality Percentage
Maes	60	5.0
Judd, Wilder, Adams	15	6.6
Walters, Meyerding, Judd, Wilder	86	11.0
McKittrick	365	13.9
John	61	16.0
Foster	31	19.0
Young	19	21.0
Bothe	60	22.0
Saunders	25	24.0
Joslin	56	27.0
Ralli and Standard	36	33.0
Smith	18	34.0
Reed	13	38.0
Coley	10	40.0
Eliason		56.0
Apfelbach		65.0

pendicitis they will not subside and one operates. But even with these measures one has to use a great deal of judgment for no rule in medicine is absolute and foolproof. The one helpful measure here too is the fact that if the pain precedes the vomiting then it is likely appendicitis, if it follows vomiting, it is due to acidosis. Intravenous glucose can be freely used in diabetics if buffered with sufficient insulin. The other measure is saline hypodermoclysis with 5 per cent glucose and insulin in the solution.

DIABETES IN CHILDREN

The most encouraging phase of all diabetic work is that of diabetic children. When we think that as recently as 15 years ago we had virtually nothing to offer to a diabetic child, when at most, through starvation we were only able to prolong the agony, one shudders to think back of those years. Today we not only can keep them in good health, growth and nutrition, but it seems that we can promise them a normal span of life and a life full of activity, not a mere vegetation; one can't help but feel quite happy about it.

A diabetic child today, if well taken care of, can not be distinguished from a non-diabetic child. Its growth and nutrition is good, it partakes of all sports, and in school, for the most part, it excels over the non-diabetic child. This very factor has been most stimulating to me, for thus, with a good mentality, these children give a good promise of being useful and even outstanding citizens of our community. It is for that reason that I feel that any sacrifice we may bring to make their lives easier is really a good investment. Such children, when they grow up are not a ballast to a community for they are advancing, productive men and women of their community. They live a full life, marry, keep up a home and even bear healthy children. I have been watching the progress of many of these children who grew up, graduated from college and are filling responsible positions. Each summer I have from 40 to 60 of these diabetic children at the Camp from all over the United States. It is really remarkable to see the spirit, the initiative and the energy output each day. No one visiting such a camp would suspect that these children are diabetic.

The problem of handling a diabetic child is more difficult a problem than the handling of a grown up. Here we have to provide calories for the energy expenditure the same as in the adult. Also, we have to provide calories for growth and the extra energy output for children are more active than adults. This means that they have to be put on a relatively high diet and given enough insulin to enable them to burn up this food, to keep their diabetic state in good control. Besides, children have ahead of them many of the childhood diseases which they have to pass through, and these, being infections, usually play a havoc with their diabetic state. Thus they need a closer supervision and guidance so that they can pass safely through these various infections without sacrificing the pancreas any more than can be helped.

One notes that usually, as children get older they require more insulin. This is frequently interpreted as a retrogressive process. It is not that altogether, for as a child gets older, it acquires a larger body mass and it takes more food to satisfy this larger body mass, and the increase of food requires more insulin to burn it up, for the pancreas function remains stationary. Thus one need not feel that because the insulin as years go by had to be raised say from 20 to 35 units a day, the child is going backward, for it is often just the above factor at work. On the whole, the same principles of treatment apply to the child as they do to the adult with the exception that relatively more calories and more protein is required in the case of the child as compared with the adult. Protamine insulin has been the greatest boon to these children who formerly had often to take three and four injections of insulin a day and are now carried mostly on one injection of protamine insulin.

BRONZE DIABETES

Bronze diabetes or hemochromatosis is not primary diabetes. Hemochromatosis precedes and only when it has infiltrated the pancreas with its pigment sufficiently to destroy much of the insulogenic apparatus, diabetes develops. Clinically, when we see such a patient for the first time, we notice the ashy gray color, we find an enlarged liver and spleen which findings make a presumptive diagnosis of hemochromatosis. To get final evidence we need only to do a biopsy of the skin and demonstrate the pigment, which cinches the diagnosis.

Not all cases, however, need to show the skin pigment and still be hemochromatosis. Just recently I reported a case in the *Journal of the American Medical Association*, a case where all the above findings were present except the pigment in the skin on biopsy. And yet the case was definitely one of hemochromatosis as the post mortem proved it to be. Briefly, he was a man 42 years of age, a robust fellow with diabetes of a year's standing, steadily going down hill. Three to four months before I saw him he was put on insulin, the symptoms improved but loss of weight persisted, the weight dropping from 275 to 185 lbs. At the time I saw him he was taking 40-0-30 units of protamine insulin a day but in spite of this his blood sugars, morning, noon and evening were 309-389-353. Blood pressure was low, 110/80.

His progress while at the hospital can be followed from chart.[1] The striking thing is that he

was relatively insensitive to protamine insulin and when I changed to insulin, he promptly became sugar free and the blood sugar came down near normal. Sinus infection upset this as any infection is apt to in a diabetic, the insulin had to be raised to 140 units a day on which the blood sugar dropped to an average level of about 250 and glycosuria markedly subsided. It was at this point that I substituted protamine insulin, an equivalent dose of two injections a day. The blood sugar rose again and sugar excretion went over 100 gm. a day. Again insulin was substituted and on March 2 he had what was thought to be a cardiac infarct and the blood sugar on that day dropped to a low level of 69-68-104 during the day. Insulin was reduced to as low as 65 units and gradually raised to the former dosage. The patient left the hospital on the 7th and died the next day of cardiac failure, getting up from bed against advice.

Here then we have a man relatively insensitive to protamine insulin. The impression is definitely that of hemochromatosis, but biopsy of

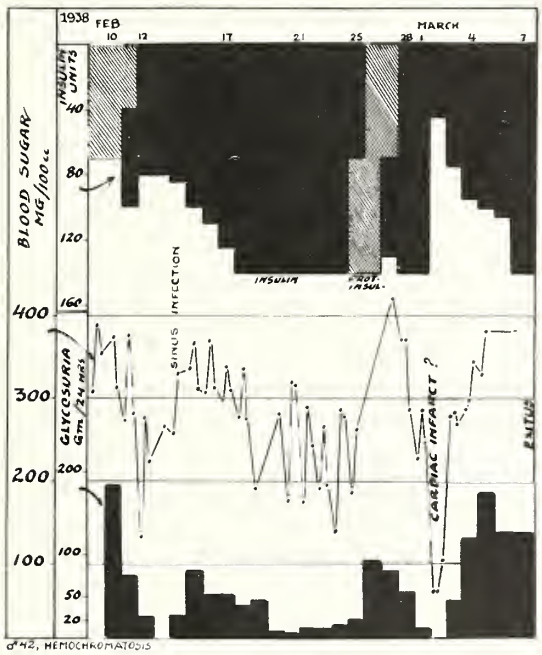


CHART 1.

skin fails to confirm it. It was left to the autopsy to settle definitely the question. Briefly the following was found at autopsy: hemochromatosis of the liver which was much enlarged, hemochromatosis of spleen, pancreas, kidney, heart, adrenals, portal-, peripancreatic- and periaortic lymph nodes. There was a marked atrophy and fat infiltration of the pancreas, splenomegaly (45 gm.), ascites (1,500 cc.), hydrothorax (1,500 cc. right, 500 cc. left), edema of subcutaneous tissues, hypertrophy and dilatation of the heart (550 gm.), fatty degeneration of the heart, mural thrombus at the apex of the left ventricle, a recent infarct of the right kidney, passive hyperemia of the gastrointestinal tract, dilatation of the umbilical vein, moderate dilatation of the oesophageal veins, acute fibrinous pleuritis of the right lower lobe and compression atelectasis of the right lower lobe.

While hemochromatosis is comparatively a rare condition, for this is the first case that I have seen in over 5,000 cases of diabetes, still we must be on the lookout for it.

THE SPECIALIST AND THE GENERAL PRACTITIONER

The treatment of diabetes presents a specialized problem for the physician. The question arises: Can diabetes be properly treated only by the specialist who has access to laboratories or can it be properly treated by a general practitioner? It stands to reason that one who is better equipped can do the work easier, better and his judgment goes further. On the other hand, the small handful of specialists could never take care of all the diabetics in the country. They can take care of merely a handful of the diabetics. It always will remain largely a problem for the general practitioner. The question comes, how well can he do the job?

That a man in general practice can render a good service to the diabetic I am fully convinced. It depends on the man. Just recently I read an article from the pen of a general practitioner in Canada, Dr. A. F. Van Wart[3] and upon reading it and seeing what careful work he did without the advantage of specialized laboratory work, what a complete comprehension he had of the subject, what a good judgment he used, I felt that even a specialist could not do much better than this man left more or less to his own resources. If Dr. Van Wart can do this, there is no reason why any other practitioner could not do the same. But it requires a study of the subject and a logical comprehension of the problem of diabetes with its complications, without which one is just groping in the dark, going through the motions so to speak, but not knowing his route. Diabetes will always have to be handled largely by the general man and it is up to him to keep a reasonably high standard in its management. On the other hand he deserves all the more credit when he does his job well than the man who has all the facilities and with these makes a good job of it. The men in general practice are still and always will be the solid foundation for medical practice and it is their job to see to it that this foundation remains solid because all the other medical superstructure is built upon it.

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A Simpler Method of Internal Fixation of Fractures of the Hip

DUDLEY M. STEWART, M.D.

IN the closing decades of life the superimposition of fractures of the upper end of the femur upon patients who are in delicate health, has generally been considered a terminal phase. Those who survive the shock of such a fracture have, in the past in most instances, lived just long enough to be carried off by the frailities of their own senility, and those who escaped presented an additional problem of crippling disability to the end of their days.

The Author

● Dr. Stewart, Toledo, Ohio, is a graduate of Tulane University of Louisiana School of Medicine, 1927; fellow American Academy of Orthopaedic Surgeons; fellow Chicago Orthopaedic Society; member Clinical Orthopaedic Society; member orthopaedic staff at Toledo, Flower and Lucas County Hospitals.

METHOD OF TREATMENT

Due to the inaccessibility of the hip, the feeble condition of the patient, and the temerity of the attending physician, fractures of the upper end of the femur in the elderly were treated more with resignation than with confidence.

Because of the attendant pain and great disability, rest in bed without support or without attempt at immobilization was more the irrevocable choice of the patient than the advice of the physician. This usually marked the beginning of dissolution. The use of pillows and sand bags to immobilize the limb against painful motions; forcible traction, and unwieldly splints of wood and iron, did little for either the patient or the fracture.

Later, the use of continuous traction in one plane, and still later the Whitman era, with accurate reduction under anesthesia and the application of a plaster of Paris spica, were added steps in the treatment of fractures of the hip. The plaster cast brought new problems and the question of bodily comfort was seldom answered. Immobilization by plaster in the elderly obese patient was extremely difficult and in the emaciated, the amount of padding necessary to prevent abrasions on bony prominences, did not assist in the immobilization of the fracture.

Following this period the use of internal fixation began. Nails of all types, screws, bone pegs and the open reduction method came into use. Unfortunately, the patients upon whom such radical surgery was indicated were not good surgical risks. Still later the introduction of a screw bolt, the autogenous bone peg and the flanged nail, caught the attention of the medical profession. Each of these methods presented difficulties in themselves and in most instances necessitated a wide surgical exposure of the hip, which was not a favorable method of treatment in the poor surgical risks.

Reduction by traction in two planes, according to the method of Russell, and the Leadbetter maneuver, followed by a plaster of Paris cast, seemed in many instances to be the methods of choice, rather than the alternative of subjecting these patients to serious and major surgery. Recently the technique for the insertion of screws, wires, autogenous bone pegs and flanged nails has been modified to permit their "blind" application so that the patient would not be subjected to the great surgical shock of open reduction.

In 1920, E. Denegre Martin first made use of a simpler method for the internal fixation of fractures of the upper end of the femur with the use of two carpenter's screws, which could be introduced through a small incision and required no appreciable trauma in their introduction. This procedure, because of its simplicity, its ease of application, and the least shocking to the patient, appears to be as efficient as any of the present means of internal fixation. It requires no postoperative immobilization and permits the patient to be ambulatory within a comparatively short time. The only restriction placed on the patient in this method is the same that has been found necessary in the others; that is, a prohibiting of weight bearing on the injured extremity for a period of four to six months, or until demonstrable X-ray evidence of union is present. It is this simple solution of what Kellogg Speed terms, "the unsolved fracture", that I wish to present.

TECHNIQUE

Following the X-ray which determines the position of the fragments of the fractured hip, the patient is hospitalized and is placed on a hard bed. Russell traction is applied for a period of

The writer is indebted to Dr. W. Rogers Brewster of New Orleans for his personal interest and many acts of kindness; and to Dr. Murray E. Goodrich of Toledo, for his wholehearted cooperation and for his excellent suggestions which have served to simplify this procedure.

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from five to seven days, depending upon the reduction obtained and the general condition of the patient.

It is a common experience to have a patient suffering with an undiscovered pneumonia, hypertension, or myocarditis which was found only following the fracture of the hip. Such a discovery and our present method of treatment tends to the attitude that the fracture of the hip was probably a life-saving incident.

After a period of four or five days a portable X-ray film is made to determine the position of the fragments. The date of operation and the anesthetic to be used can then be determined. The surgeon need not be in a hurry to operate if the general condition of the patient does not permit and in my own experience, I have found that a delay of four weeks or more has not been detrimental and has definitely not affected either the operation or the end results. An average time of five to seven days has been used for traction for internal fixation.

When it has been determined that the fracture has been properly reduced and that the patient is in good condition, the operation is scheduled.

CHOICE OF ANESTHETIC

There has been apparently no definite contraindication to a light nitrous-oxide anesthesia, since it is not necessary to have the patient deeply anesthetized for this operation. Others have occasionally made use of spinal and local infiltration analgesia where they believed that the inhalation type was contraindicated. The Martin method of internal fixation of the hip lends itself to any type of analgesia or anesthesia, and while it has not, to my knowledge, been used with the intravenous form, there is no doubt but that it may be done according to our present method.

The patient is transported to the operating room either in his bed or on a hospital cart. The only precaution necessary is to prevent external rotation of the lower fragment, and if the limb is kept in internal rotation when traction has been removed, and in transportation, there need be no fear of displacement. The patient is then placed on the operating table and an anteroposterior X-ray film is made to determine the final position before operation. The injured limb is held in a position of slight abduction and is maintained in a position of internal rotation and slight traction by the assistant. I have recently been using a portable X-ray machine which is placed beneath the operating table so that the procedure can be observed from time to time by the roentgenologist. All preparations are made before the patient is anesthetized so that the period of anesthesia will be as short as possible. The region of the hip which is to be subjected to surgery has been carefully prepared several times previous to operation and any preoperative skin antiseptic now employed can be used. With the final X-ray film inspected and the position determined to be satisfactory, the anesthesia or analgesia is begun.

OPERATION

An incision is made on the lateral aspect beginning about the upper portion of the great trochanter and extending downward for about four inches directly to the bone. This exposes the area of the midportion of the great trochanter and the shaft directly beneath. Care is taken in hemostasis as the wound should be as dry as possible. Selecting the upper portion of the subtrochanteric plane, which is usually found to be perpendicular to the plane of the neck of the femur, and has been checked prior to the operation, the drill point is introduced into the bone

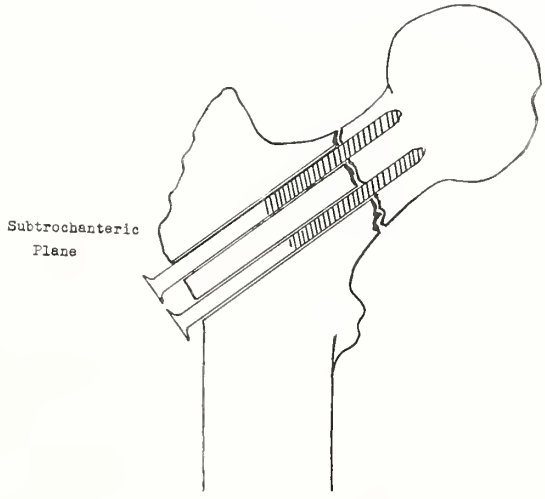


Fig. 1. Diagram of application of screws illustrating holes in shaft fragment and screw threads engaging in head fragment. Impaction of fracture fragments is assured with every turn of the screws. Note subtrochanteric plane which is usually at a right angle to the plane of the neck of the femur. The subtrochanteric plane is used as a guide for the proper introduction of the screws.

and the angle of introduction is determined fluoroscopically. When this angle is correct the bone is drilled approximately to the line of fracture, which should be parallel to the long axis of the neck of the femur. With the extremity held in a position of about 20° internal rotation, no compensation need be made for the anterior inclination of the neck of the femur. With the drill in place, another fluoroscopic check is made and if satisfactory the drill is withdrawn and the screw is placed in the drill hole. The screw should theoretically occupy the upper half of the neck of the femur and is held in place with several turns of the screw driver. Paralleling the upper screw, the drill is again introduced about one-half inch lower, and the angle of introduction is again checked with the fluoroscope. A drill hole is again made to the line of fracture and with a fluoroscopic check, the second screw is introduced and

both screws are tightened firmly. A final fluoroscopic check is made and if the screws do not seem to be accurately placed they can easily be backed out and the angle corrected. The incision is closed snugly in two planes and following the postoperative dressing, X-ray films, both in the antero-posterior and lateral projection are made. made.

Gentle traction for a few days postoperatively may add to the comfort of the patient, but this is not always necessary as the patient may be moved in any position. Following the removal of the sutures on about the tenth day, the patient is permitted to use a wheelchair and when strong enough is permitted to use crutches. No restriction regarding motion of the injured extremity is made and active motions of the hip are encouraged, since active motion stimulates the blood supply and prevents muscle atrophy and consequent joint stiffness. No weight bearing however, is permitted for a period of about six months or until there is definite X-ray evidence of solid union.

The screws are not removed and in my experience there has been no necessity for their removal. Others, however, have found it necessary occasionally to remove the screws because of too early weight bearing, which has produced bending or breaking of the screws. Since the type of screw used permits solid fixation there has been no evidence of osteitis about a loosened screw and therefore no indication for removal except with the rarely noncooperative patient who bears weight too soon and consequently bends or breaks the screws.

DISCUSSION OF METHOD

It has not been necessary in this series to employ skeletal traction. Adhesive traction in two planes according to the method of Russell, has been entirely satisfactory. Russell traction however, must be applied and maintained with the view of the fundamental principles involved, otherwise, there may be difficulty in reduction should any of the common variations be utilized. This gentle continuous method of traction is used because it permits the patient, who is already a poor surgical risk, to recover from the shocking catastrophe of the fracture and also to allow a period of post-traumatic rest. With the proper application of Russell traction, the vast majority of the fractures about the upper end of the femur can successfully be replaced.

According to the Martin method of internal fixation of fractures of the upper end of the femur, very simple apparatus is necessary. A surgical drill with a 5/32 inch drill point, a surgical screw driver and two No. 8 carpenter's screws, three to three and one-half inches long, plus the usual surgical instruments, are all that is required. There need be no outlay for expensive instruments or means of internal fixation. Brewster, has recently used a No. 10 screw which will require a 3/16 inch drill point, because he believes that the larger threads give a better purchase when they engage in the capital fragment.

The operative field is small and the soft tissues require very little retraction, consequently there is little chance for tissue damage, and the subsequent lowering of tissue resistance leading to infection is minimized. The drill point is just large enough to permit the introduction of the screw to the fracture line and when the screw is driven in, it engages firmly in the capital fragment and has a greater impacting force on the fracture line than can be described. The use of two screws applied parallel prevents rotation of the fragments and in my later experience with fluoroscopic control the procedure for the introduction of screws has never taken longer than 15 minutes. The rest of the time is devoted to making the incision and the closure of the operative wound. Therefore, the patient is under the anesthetic for the shortest time possible.

The portable X-ray apparatus is used for fluoroscopic control since it shortens the operative time and it is not necessary to wait for a series of X-ray films in order to determine the position of the fixing agent.

The substitution of the metal top of the Hawley fracture table by duraluminum has permitted the continuous use of the fluoroscope from beneath the table and necessitates only the covering of the operative field and adjoining area with a large sterile towel when the roentgenologist determines the position of the drill and the screws. Where this refinement is present in a hospital the patient should be given the full benefit of all of the equipment in order to materially shorten the time of operation and the anesthetic.

DISCUSSION OF FIXING INSTRUMENTS

From the beginning, a fixing instrument which depended solely upon contact for its fixation was not considered. Smooth nails, and later, flanged nails, do not seem to hold firmly enough. These instruments after a time, have a tendency to become loosened and lose their support, producing a decalcification and may, in some cases, be lifted out of their grooves in the bone in which they were placed so firmly before. Wire fixation of the flanged nail has been described and small metal screws or pegs have also been designed to prevent the nail from slipping.

A single screw was not advisable, as there is a great tendency for it to act as an axis about which both fragments might rotate. Double-threaded single screws also have this fault.

The introduction of multiple steel wires is not practical, as has been shown, and the smooth nail has the same disadvantages as the plain nail.

In the introduction of the flanged nail, much trauma is needed. The fact that impacting of this

type of nail is necessary, to my mind, reveals its mechanical disadvantage, and adds immeasurably to the trauma incident to its introduction. It is not easily withdrawn for a change of direction. Trauma in bone surgery produces shock, which is best avoided in the elderly.

Two carpenter's steel screws were chosen for several reasons. They could be introduced easily. The threads engage strongly in the head fragment and therefore do not have a tendency to become loose. Lastly, they can be procured very cheaply at any hardware store. In the No. 8 screw, the amount of metal present in the neck of the femur compares favorably to the area of that of the flanged nail. We have never seen decalcification occur around the threads of these screws. They do not have to be removed, as there is no indication for their removal except breaking in the non-cooperative patient. Mechanically, therefore, and physiologically, this method seems to be the one of choice in fractures about the upper end of the femur. Ideally, the bone-pegging of fractures of the neck of the femur as described by Henderson before the Chicago Orthopaedic Society at the June meeting, should take precedence over any other means of internal fixation, but that procedure requires a long surgical time, plaster spica and prolonged hospitalization.

There need be no upper limit in the age group of the patients, the oldest in my group being 79 years and in the total group, 82 years. Since the operative procedure requires little time according to this method, and since the drilling of the shaft fragments and the introduction of the screws are the only procedure which may be conducive to shock, patients in precarious health may be operated upon without fear of adding to the seriousness of their condition. In certain instances, nursing care is impossible because of pain and motion at the site of the fracture in patients who are seriously ill. Internal fixation can be done as a humane procedure to permit ease in handling and cleansing even though the patient may live but a few weeks following the operation. As the fracture fragments are completely immobilized with the fixing agent, the patient may be handled freely and placed in any position.

By permitting the patient to mobilize the hip, which has been repaired, by the use of crutches, and permitting them to attend to their elimination and to their own cleanliness, greatly adds to their morale.

The present series of cases treated by the Martin method of hip fixation is about 85 and the good results are approximately 90 per cent. These figures include the ages of 45 to 82.

Fractures through the trochanters, in which the larger portion of the greater trochanter remains attached to the shaft fragment, can be successfully fixed by the Martin method. However, in cases in which there is only a thin shell of cortical bone in the region of the lower portion of the greater trochanter, this procedure does not apply. There is not enough bone in the trochanteric fragment to permit the solid fixation of the screws. Fractures of the lesser trochanter, complicating fractures of the neck of the femur, can be completely ignored. So far, no unfavorable results have occurred in cases of lesser trochanter fractures.

While it is considered the ultimate of surgical fixing agents, to have them made of certain metals which resist oxidation, it has not been found necessary to utilize any but the common carpenter's screws in these cases. An X-ray film of the hip of one of the older cases which was made nine years and two months after the introduction of screws, the screws were found to be in excellent condition without the slightest evidence of erosion and every thread appeared to be in the same condition as when it was introduced. Another case which was examined six years and five months following the introduction of screws for fracture of the left hip, the screws were found to be in excellent condition. This patient sustained a fracture of the right hip and Vitallium screws were used. Apparently, from the consideration of both of these cases, there has been no definite indication for the employment of the more highly priced fixing agents in this series.

SUMMARY

1. This is a presentation of a simpler method for the internal fixation of fractures of the upper end of the femur, particularly of the neck and trochanters, which was devised by Dr. E. Denegre Martin of New Orleans, 18 years ago.

2. The use of Russell traction for reduction and a comparatively non-shocking and non-traumatic means of introduction of carpenter's screws with early mobilization are advocated.

3. Prohibition of weight bearing for a period of six months, or until there is X-ray evidence of union, permits these elderly patients to be comparatively independent as far as the attention to elimination and cleanliness is concerned.

4. The writer has utilized the fluoroscope for control of the introduction of the fixing agent and has found that it appreciably shortens the anesthetic time.

5. The equipment is minimal and the fixing agents are easily acquired.

6. In a series of about 85 patients with fractures of the neck of the femur and intertrochanteric fractures the good functional results have been approximately 90 per cent.

7. There has been no necessity for the use of metals other than the steel carpenter's screws, commonly found in hardware stores, in this series.

8. This method of internal fixation of frac-

tures of the hip can be done in practically any hospital that affords good surgical facilities, a portable X-ray apparatus and a well trained and interested roentgenologist.

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Sulfanilamide

Sulfanilamide possesses a cumulative toxicity in rabbits. Repeated administration led to nervous symptoms, weakness, emaciation, and a considerable mortality.

The influence of diet was shown in that a dosage of the drug, which was tolerated by rabbits on a cabbage diet, caused a high percentage of deaths in those animals on a diet of oats plus cabbage, or oats alone.

Daily administration of sulfanilamide to hens produced neuromuscular weakness and emaciation. Death frequently occurred and was often delayed for one to four weeks subsequent to treatment.

"Most important point yet to be determined is the extent to which cumulative toxicity of the drug occurs in man, particularly under those conditions often present during therapy—restriction of diet and toxemia. In man, the usual toxicity symptoms differ again from those seen in animals: therefore, the delayed toxic effects from sulfanilamide as seen in chickens must be given no clinical implications. This because of the relatively large doses administered in these experiments, and because similar effects so rarely occur in man following its use."—Public Health Reports, U. S. Public Health Service, Jan. 27, 1939.

Shock Therapy In The Neuroses

JAMES SAGEBIEL, M.D.

THIS paper is a preliminary report which intends to open up lines of investigation in the treatment of the neuroses by means of a procedure which has been applied successfully in the psychoses. Meduna[1] in 1935 first reported on the use of camphor and metrazol (pentamethylenetetrazol) injections for the production of convulsions in the treatment of schizophrenia. Sakel[2] in the same year reported on the use of hypoglycemic shock for the same disorder. Both types of treatment have produced about the same percentage of remissions in schizophrenia and although the periods of observation following treatment have been short, most of the patients are in remission.

The Author

● Dr. Sagebiel, Dayton, Ohio, is a graduate of Harvard University Medical School, 1927; senior consultant in neuropsychiatry at Miami Valley, Good Samaritan and St. Elizabeth Hospitals; consulting neuropsychiatrist for Kettering Institute for Medical Research.

THEORY OF MODE OF ACTION

Without becoming too deeply involved in what is at the present time a speculative subject, I nevertheless feel that a few remarks pertinent to the theory of action of insulin and metrazol would not be amiss. The reaction to a threat of death by the organism as a total personality is one theory which has been advanced[3] to explain the mechanism of action of insulin and metrazol. In searching for a common denominator for the action of these two drugs on the psychotic individual, biochemical explanations seem inadequate, since pharmacologically the action of these chemical compounds on the organism differs from one another. It seems that the most logical explanation of the action of either insulin or metrazol on the human organism is to present it with an artificial, controlled death-threat after first reducing it to a primitive spinal reflex animal.

In both types of therapy the conscious mind is temporarily laid aside and the treatment is directed to the primitive brain stem with its automatic nuclei and their peripheral pathways. Apparently during treatment a swift pharmacodynamic decortication takes place beginning with the most recent phylogenetic acquisitions in the neopallium[4] and exposes the primitive centers of the self-preservative instinct in the brain stem to a threat of death. When these autonomic centers, which are interested only in the preservation of the life of the organism, are presented with such a threat all the life energies of the individual must be mobilized to combat it. In the case of the psychotic or neurotic individual, both of whom are extremely narcissistic, this life energy or libido is forcibly withdrawn from those organs or segments of the soma, or from the delusional or hallucinatory complexes on which it has become invested and used to combat and overcome the death-threat. When this artificial death-threat is made to subside either by the use of glucose in insulin shock or by the rapid destruction of the metrazol, some of the mobilized libido or life energy still remains free and may then be attached by the patient to objects in the environment. Sufficient object attachment of the individual's libido results in normality. Since the essential psychologic difference between the schizophrenic psychoses and the narcissistic neuroses is the type of adjustment made by the individual to its unconscious conflicts, I felt justified in applying metrazol therapy in the treatment of the neuroses.

Seven cases were selected for treatment, of which six were female and one male. Their ages varied from 24 to 42. Although all have had neurotic personalities from childhood, the duration of the actual neurosis has been from two to seventeen years averaging about nine years. All have failed to respond to any previous type of therapy used. All were thoroughly examined but the details of these examinations have been omitted because they were essentially negative except for many signs of imbalance of the autonomic nervous system.

CASE HISTORIES

Case 1:—Mrs. G. A. is a 42 year old, married woman who has had an obsessional neurosis for 15 years. There was a marked admixture of anxiety hysteria and some elements of neurasthenia. The patient was in a constant state of anxiety and depression. She possessed an intense heterosexual drive which was prevented from expressing itself in behavior by a phobia pertaining to coitus and impregnation. This phobia demanded complete abstinence from coitus even with contraceptives. Further protective devices against coitus included locking of the bedroom door and window at night, wearing a specially constructed perineal pad, and placing a newspaper in any chair which may have been "contaminated by germs" (equivalent to spermatazoa in the patient's mind). Sexual tension was peri-

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odically relieved by masturbation accompanied by intense feelings of guilt and depression. Patient was markedly auto-erotic and narcissistic.

This patient received five injections of metrazol varying from 5 cc. to 8 cc. Only two resulted in major motor convulsions. The other three resulted in no reaction at all or a minor motor seizure and were accompanied by intense anxiety. Due to this intense anxiety the patient discontinued treatment after the fifth injection. Two weeks later and again at one month the husband reported that the patient's depression was much improved but that she refused further treatment because of the possibility of attendant anxiey.

Result: Neurosis not resolved.

Case 2:—Miss D. S. (1283) is a 24 year old single girl with an obsessional neurosis of 11 years duration. Eleven and again six years ago, she had obsessional episodes with fixed ideas about a crippled boy. During the intervals between episodes the patient showed neurotic personality traits but no manifest neurosis. For the past year the following obsessions have been present: hand washing, counting window panes and auto licenses, a repetition-compulsion to think about the crippled boy episode, and checking and rechecking columns of figures. In addition she complained of phobias of insanity, phobias of feathers, inability to concentrate, feelings of unreality, day dreaming, irritability, depression with crying, feelings of dissatisfaction, ideas of suicide and murder, nervous headaches, clavus, and aching of the jaws. Present also were marked indecision, and lack of assurance and confidence.

The patient received 44 insulin shocks over a period of two months, then eight injections of metrazol combined with insulin U20 to U50, then 13 injections of metrazol alone. The amount of metrazol varied from 4 cc. to 10.5 cc. Of the 21 metrazol injections 13 resulted in major motor convulsions; the other eight in minor motor seizures or none at all.

Two and a half months after the last treatment the obsessions were found to be present but with little emotional force behind them; her thoughts could be easily deflected from her obsessions. The chief complaints at this time were dissatisfaction, indecision, inability to concentrate, and restlessness. Resentment and hate projections were obvious. Fastidiousness was marked and characterized by repetition of a compulsion to clean things. No anxiety was aroused on rejecting this type of behavior. Marked aggressive-destructive tendencies arose toward her father, brother, and employer but were confined to ideation only. The sex drive was more prominent. Three and a half months after the last treatment the dissatisfaction and resentment toward the environment was still present.

Result: Neurosis not resolved.

Case 3:—Mrs. D. S. (1342) is a 42 year old housewife with an obsessional neurosis. She has always had a neurotic personality. Seventeen years ago following an appendectomy she had an hysterical episode with numbness, drawing of the muscles, vomiting, diarrhea, and constipation. Since then she has had many spells of depression with a tendency toward introversion and somatic preoccupation. Obsessions and phobias have been prominent. She has always been conscientious, fastidious, and particular. Neglect of any duty produced uneasiness amounting at times to anxiety. Periods of euphoria with overactivity alternated vaguely with periods of depression. During the past six months she has been continuously depressed and there has been an exaggeration of all her neurotic symptoms. Lack of interest in the environment with marked somatic preoccupation has been prominent. She also had anorexia and nausea with generalized nervous tension and many hypochondriacal symptoms. There was marked emotional instability with agitation and depression, phobias of being alone, of becoming an invalid, of suicide, and of insanity.

The patient received 11 injections of metrazol varying from 5 cc. to 11 cc. Five of them resulted in major motor convulsions. The last five injections, although the dosage was increased by 1 cc. each time resulted in no convulsions but were accompanied by intense anxiety.

Two weeks after the last treatment the patient showed less depression. She said, "I now feel the same as in my normal times". The fear of being alone persisted and there was still considerable somatic preoccupation. Many neurotic character traits remained including an undercurrent of resentment toward the environment, easy irritability, childishness, and egocentricity. Six weeks after the last treatment she showed marked improvement. There was no depression and her interests became more extroverted. She did not confine her conversation to her complaints. Her husband stated that this was the most nearly normal she had been for 10 years.

Result: Partial remission of neurosis.

Case 4:—Miss E. K. is a 32 year old divorcee with an obsessional neurosis mixed with neurasthenia. The duration has been about two years although she has always had a neurotic personality and had a severe nervous breakdown at the age of 18. The neurosis was precipitated two years ago by the death of her step-father to whom she was deeply attached. Since then she has been nervous and depressed and worried more than usual about finances and the condition of her stomach. She manifested ideas of nihilism stating that she never amounted to anything and had nothing to live for. She was quite indifferent and lacked ambition and outside interests. Although she had many friends she had asocial tendencies because of feelings of social inadequacy and inferiority. One attempt at suicide was followed by ideas of self-recrimination. Before treatment with metrazol she presented with complaints of insomnia, easy fatigability, nervousness and weakness, splanchnic and somatic tremor, easy excitability, attacks of numbness, and a tired feeling in the left arm. The hands and feet would become cold. Attacks of tachycardia and palpitation associated with precordial tension occurred especially at night. Gastro-intestinal dysfunction manifested itself as anorexia, abdominal gas, bloating, and borborygmi. Constipation had always been present but was more marked after the suicidal attempt.

This patient received 14 metrazol treatments of which eight resulted in major motor convulsions. The partial reactions were accompanied by intense anxiety, motor activity, and mental confusion so marked that at one time it was necessary to hospitalize the patient. The dosage varied from 5 cc. to 10 cc.

Two months after the last treatment the patient showed marked improvement. She was happy and extroverted. She went out more socially, helped in the housework, ate and slept well, and felt fine physically and mentally. The

feelings of generalized and splanchnic tension disappeared. Occasional periods of emotional instability occurred but these were infrequent and more easily controlled by the patient. Although she maintains many elements of her previous neurotic personality many of her symptoms which incapacitated her for ordinary community life have been absent during the two months of observation.

Result: Neurosis in partial remission.

Case 5:—Miss C. H. (1082) is a 36 year old single girl with neurasthenia and many symptoms of autonomic imbalance of five years duration. The family environment is unfavorable. All are highly emotional; the oldest brother had a nervous breakdown, the father has not talked to his wife or daughter for many years, and the mother is domineering, sadistic, and emotionally explosive. The patient lives in an atmosphere of continuous emotional tension. At the onset of her neurosis she experienced nervousness and fatigue with pain shooting up her spine into the nuchal line. Three and a half years ago she "went all to pieces" with marked exhaustion which required bed rest for many months. During the past two years the symptoms have all increased. Exhaustion was marked and she became fatigued easily with minor household duties. She slept well but never seemed to get enough sleep and was exhausted on arising in the morning. There was marked emotional instability, easy excitability, irritability and restlessness associated with marked splanchnic tension. She complained of throbbing and tightness in the throat, dryness of the mouth, sighing, shaking and weakness of the knees, pounding and palpitations of the heart, dyspnoea, and hyperperistalsis. She had feelings of futility and unreality, claustrophobia, and phobias of insanity and chronic invalidism. She also complained of clavus, formications on the left side of the head, and splanchnic tremor and tension. There was marked dissatisfaction with life.

The patient received six metrazol injections of which four resulted in major seizures. These varied from 5 cc. to 6 cc. in dosage. After the last injection in which there was no reaction to the metrazol the patient developed a marked hyperpnoea followed by muscular rigidity with tetanic contractions of the fingers and toes. This was promptly relieved by intravenous calcium gluconate. Two weeks after the last injection the patient complained of weakness in the knees, clavus, and formications of the left side of the head. She felt generally better, was more relaxed and able to do more. The symptoms returned only when under pressure at work. She is now engaged in a full-time secretarial position.

Result: Remission of neurosis.

Case 6:—Mrs. E. C. (1113) is a 28 year old married woman with conversion hysteria of about 10 years duration. The patient hates her husband, is sexually frigid, and abhors coitus. Three years ago she was found to have syphilis which she probably acquired from her husband and after prolonged treatment including 50 hours of fever therapy is now serologically negative. Her chief complaint was vomiting which began 10 years ago during pregnancy and has continued intermittently until three years ago. At this time it became constant and occurred after every meal. At times it resulted in severe dehydration, oliguria, and anuria. The patient used a Rehfuss nasal tube to instill liquid food into her stomach. She had marked constipation requiring an enema every other day. There have been no spontaneous movements for over a year. The constipation and sacral backache dated from the pregnancy. Dizziness, ataxia, fainting spells, anesthesiae and paraesthesiae, frontal headaches, nuchal tension, weakness, fatigability, insomnia, morning exhaustion, nervousness, and splanchnic tremor were present at times. She was markedly unstable emotionally, became easily depressed, cried frequently, and was thoroughly dissatisfied with life. Her menses occurred irregularly every five or six months with marked dysmenorrhea and oligomenorrhea. She slept well and had a good appetite but could take food only through the Rehfuss tube. There was no weight loss.

This patient received 33 injections of metrazol of which 29 resulted in major motor convulsions. The dosage varied from 5 cc. to 9.5 cc. Ten days after the last treatment she was improved but not to a satisfactory degree. She still vomited slightly after each meal. She discarded the Rehfuss tube and took fluids and solids by mouth. The restlessness diminished and her strength and general feeling of well being increased. Subjectively the patient was enthusiastic about her improvement. The sexual frigidity and the attitude toward her husband remained the same.

Result: Partial remission of neurosis.

Case 7:—Mr. G. R. (1359) is a 30 year old male with hypochondriasis and an admixture of anxiety and conversion hysteria of two years duration. He has always had a neurotic, inadequate type of personality. Two years ago he developed attacks of intermittent burning in the right lower quadrant. These disappeared following an appendectomy four months ago. After the operation his right-sided symptoms became left-sided including the burning in the abdomen, numbness in the left arm and leg, twitching in the left eye, and left-sided headaches. All his symptoms were aggravated by excitement. He had a capricious appetite, belching, gas, borborygmi, flatus, and diarrhea. There were many headaches, feelings of pressure in the head, clavus, and nuchal tension. No insomnia was present. There was marked changeability in location and intensity of his symptoms. Nervous tension and restlessness were present. He also had nocturnal attacks characterized by pounding of the heart, tachycardia, weakness, and anxiety. He was found to have diabetes with glycosuria and a blood sugar of 240 mg. On a moderately restricted diet his urine became sugar-free and the blood sugar fell to 120 mg.

The patient received 13 metrazol treatments with five resulting in major motor convulsions. The dosage varied from 5 cc. to 12 cc. The patient after three months treatment feels more hopeful and more at ease. He has occasional tugging sensations in the abdomen which are present only when his mind is not occupied. Somatic preoccupation has disappeared and he feels much better.

Result: Neurosis partially resolved.

DESCRIPTION OF TREATMENT

The dosage varied from 4 cc. to 12 cc. and the number of injections given each case varied from 5 to 33. The reaction time between the injection of the drug and the beginning of the convulsion averaged 20 seconds and the convulsion 52 seconds. The convulsion is characterized at its

onset by a slight cough and blepharoclonus which is rapidly followed by a sudden jerking of all the muscles. Rigidity in extension then occurs with occasionally some torsion of the trunk, upper extremities, and neck. At the onset of the tonic phase the mouth opens widely, at times dislocating the mandible, and slowly closes with great force as the clonic phase begins. A rapid clonus develops which gradually diminishes in rapidity but increases in amplitude until the final jerk which terminates the convulsion. Cyanosis appears late in the convulsion and just before its termination the face becomes an ashy-gray color. Muscular relaxation occurs and is followed by a period of hyperpnoea which gradually subsides in about 30 seconds. Either bradycardia or tachycardia may occur but there is a fairly rapid return to normal. Following this a period of mental confusion gradually sets in, builds to a peak, and subsides during which time various primitive behavior patterns may be vaguely worked out. Retrograde amnesia is common and the patient on coming out of the confused period frequently asks when he is going to receive the treatment. Anterograde amnesia continues for one or two hours and gradually subsides.

When insufficient metrazol is given to produce a major motor convulsion the patient has either a minor motor seizure characterized by a few violent clonic movements lasting up to 10 or 15 seconds and followed by anxiety, or a sensory seizure with retention of consciousness and a "floating" sensation associated with intense anxiety coming in waves every 20 to 30 seconds. These waves gradually fade out over a period of 10 or 15 minutes. At times the patient experiences no reaction at all to the injection.

SUMMARY OF CLINICAL RESULTS

The patients were given the treatment three times a week in the receiving ward of the Miami Valley Hospital, Dayton, Ohio, and after one hour of observation were allowed to return home.

The seven cases received a total of 98 metrazol injections of which 64 resulted in major motor convulsions. This represents an average of nine convulsions in fourteen treatments. In a parallel series of eight psychoses, it was noted that twelve out of thirteen injections resulted in major motor convulsions. This difficulty in producing a convulsion in the neurotics as compared to the ease and regularity with which it occurred in the psychotics appeared too consistently to be discarded as incidental. This difference in resistance to a convulsant drug by the neurotics as compared to the psychotics may represent the difference between an intact, powerful ego in the former as compared to a weak, fragmented, or shattered ego in the latter.

None of these cases has been observed sufficiently long to be sure what permanent effect this treatment will have or how long the remissions will last. The most recent survey of this series indicates that one is in complete remission, that is, free from her previous disturbing psychic and somatic symptoms and has returned to a gainful occupation. Four are in partial remission with varying degrees of improvement. Two show no signs of remission at all. Of the latter, one was inadequately treated receiving only five injections of which two resulted in major motor convulsions. The other was thoroughly treated with 44 insulin shocks followed by 21 injections of metrazol. The metrazol was first combined with insulin and later used alone.

COMPLICATIONS

No serious complications developed and no fatalities occurred. Dislocation of the mandible was not uncommon but could be easily reduced during the period of relaxation immediately following the clonic phase. It should be emphasized that immediate reduction of the dislocation should be performed since normal muscle tonus rapidly returns. Biting or bruising the lips and tongue may occur but is guarded against by the insertion of a horseshoe-shaped gauze-wrapped cotton mouth gag. Prolonged hyperpnoea after the convulsion may result in tetany (case 5). This is readily controlled with intravenous calcium gluconate. Excessive motor movements of a purposeless nature may occur after the convulsion but rapidly subside. They tend to recur in cycles every 10 to 30 seconds, each one being less marked than its predecessor. Occasionally they become prolonged and constant and may require restraint in the hospital for 24 to 48 hours (case 4). During this period of motor overactivity the mental confusion, disorientation, and amnesia persist. (Recently sodium amytal grs. VIIss i. v. has been found effective in terminating this state). Urinary incontinence rarely occurred and could be prevented by emptying the bladder just before the treatment. One complication which was most interesting from the experimental angle, and yet most unsatisfactory from the therapeutic was the development of anxiety after a partial reaction, that is, a minor motor seizure with retention of consciousness or no seizure at all. The intensity of the anxiety displayed could be compared only to an individual suddenly exposed to a severe threat of death. The patients on recovering from this anxiety would remark frequently, "I thought I was dead", and "I felt like I was going to die".

COMMENT

It must be admitted that this treatment is exposed to the serious and justifiable criticism that it is merely a powerful method of suggestion, a therapeutic tool which is known to work well with neurotics. On the other hand a suggestant powerful enough to provoke a change in the per-

sonality such as this does must have a profound effect on the patient's unconscious libido economics.

Students of psychology are constantly attempting to reduce human behavior to its simplest fundamentals and to explain our complex adult behavior patterns on the basis of primitive instinctual drives activated by emotional energy and restrained by a super-ego trained to respect accepted social standards. It may be that this type of therapy holds for us not only a therapeutic instrument but also a new method of objective psychological investigation. It is certainly worthy of further study in the field of the neuroses.

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New Test for Malaria

A diagnosis of malaria from clinical findings alone has sometimes proved to be inconclusive because some of its many symptoms are similar to those of other diseases. For this reason it is necessary to resort to the use of certain laboratory tests—such as the microscopic demonstration of malaria parasites in the red blood corpuscles or a specific pigment in certain white blood cells. This is not always easy to accomplish, however, particularly when the number of parasites in the blood circulation is small.

The new Proske-Watson test is based upon the fact that a certain fraction of the blood proteins, the euglobulins, is increased in most cases of malaria, and that this increase can be demonstrated by the color intensity developed by this protein.

It was the purpose of Proske and Watson to devise a simpler and more accurate biochemical method for the quantitative estimation of serum euglobulin which would give results comparable to the melano-reaction of Henry and the distilled water method of Chorine, obviate the necessity for the use of an expensive photometer, and be relatively easy to perform, so that it could be more generally adaptable for the diagnosis of malaria.

The originators of the new test, in a recent series of experiments, have obtained 97.4 per cent positive reactions in known malaria cases as compared with 81.9 per cent yielded by microscopic examination.—Public Health Reports, U. S. Public Health Service.

The Suprarenal Cortex

In the domain of research, the extirpation of organs remains one of the important means for the study of physiologic activity and endocrine therapy. As a by-product it has contributed immensely to the more exact evaluation of clinical signs and symptoms which in turn has led to the transplantation of the physiologic chemist from the laboratory to the bedside. Many clinical phenomena hitherto inexplainable are now known to be the result of a slight dysfunction of one of the glands of internal secretion.

The destruction of the suprarenal cortex has always been associated with the entity known as Addison's disease. It is only within recent years that extirpation studies of the suprarenal cortex have furnished us with a knowledge of the multiplicity of bodily functions which are dependent upon its normal activity. The metabolism of the mineral salts, particularly sodium and potassium, is profoundly affected by its removal; the viscosity of the blood is increased; and alterations are noted in carbohydrate, fat, and nitrogen metabolism. Clinically, early evidences of disturbed neuromuscular function are noted. Each and all of these phenomena can be corrected by supplying to the experimental animal an active extract of the cortical substance.

Confusion, however, still exists concerning the earliest sign or symptom of adrenal cortical dysfunction in humans. This is but natural since in the various animals used for research, some appear earlier in one species while different ones have been reported to become manifest sooner in others. From all the experimental data at hand we may expect soon a clearer clinical concept of the effects of disturbed supraranal function. Rhinologists, for example, have reported decided benefits in vasomotor rhinitis from the use of extracts of the suprarenal cortex administered together with dilute hydrochloric acid. Hislop has found that the intramuscular injection of cortin gave good results in marasmus. All indications point, therefore, to a broadening of the scope of the use of suprarenal cortex as a therapeutic agent.—Editorial, N. Y. State Med. Jour., January 15, 1939.

Errata

In the article on Diagnostic and Prognostic Value of a Quantitative Flocculation Test of Blood Serum, by Carroll DeCourcy, M.D. and Otto F. Thuss, M.D., and published on page 273 of the March issue of *The Journal* the word "normal" instead of the word "fast" appears in the twelfth line of paragraph one. The corrected line should read: . . . and we know that fast sedimentation does not. . . .

Serum Disease With Special Reference to Polyneuritis

J. J. COONS, M.D. and GILMAN D. KIRK, M.D.

MANY reports of the involvement of the nervous system, after the administration of blood serum, have been made in France, quite a few in Germany, a few in the United States, England and other countries. Dennis[1], 1667, first used a foreign serum as a therapeutic measure. He used lamb's blood. In 1874, "Dallera described an urticarial eruption occurring ten days after its use." Transfusions were rarely made and little was known as to the after-effects of a foreign serum until the use of antitoxin treatment came into general use late in the last century. The ill effects of a foreign serum on the nervous system was first reported by Gardere and Gangolphe[2] in 1908. Dyke[3] in England, discussed the subject in 1918. Mason[4] (U.S.A.) records a case of optic neuritis in 1922. Vogel,[5] in Germany, 1927, gave blood serum which was followed by polyneuritis. Kennedy[6] (U.S.A.) in 1929 discussed the subject in general. Lhermitte[7] (France) in 1919, was first to report three cases of weakness and atrophy of the muscles of the shoulders after the use of antitetanic serum. He attributed the neuritis directly to an allergic reaction due to the foreign serum, and not the result of the specific antitoxins in the serum. Roger[8] and Poursines (France) reviewed the literature in 1932; Pessin[9] (France) in 1933; Vogel [10] (Germany) in 1935.

Polyneuritis is more often seen after the administration of anti-tetanus serum, probably because this serum is more frequently used. The next most common cause of neuritis from the use of a foreign protein is the pneumococcus serum. We have also reactions after the use of scarlet fever, meningococcus, streptococcus and diphtheria sera—in fact, all foreign proteins. Few cases were reported during the World war, although tetanus serum was used after many gunshot wounds. The serum administered has no selective action on the nervous system; the cervical and brachial plexuses however, are most frequently injured. In the great majority of cases, the nerves supplying the upper extremities, especially the shoulder muscles, are involved; infrequently the cranial nerves, in exceedingly rare cases, the nerves supplying the lower limbs, giving rise to muscular and sensory disturbances of the lower extremities.

PATHOLOGY

In serum sickness as the result of an allergic reaction, there may be irritation of the brain, spinal cord, spinal roots, meninges, or the peripheral nerves. The irritation brings about congestion of the cellular or radicular blood vessels, followed by epidural edema. The edema causes an ischaemia of the blood vessels quite similar to the changes in the skin as in urticaria. The bony framework of the skull and spine aids in the constriction of the nerve fibers of the individual roots due to the edema. In mild cases, there may be merely a hyperaemia. In those cases with muscular weakness, atrophy, transient paralysis, etc., there is probably free hemorrhage and thrombosis of the small blood vessels. The constriction of the nerve fibers due to the edema is responsible for the pains, slow and progressive wasting of the muscles, and finally a flaccid paralysis. It is not settled whether or not the nerve trunks themselves, the plexuses, or the nerve roots are involved. With absorption and resolution, restoration of the muscle tone recurs slowly and may be complete in three to eighteen months. Slight weakness and a minor degree of atrophy of the muscles may be permanent. The frequency of involvement of the upper extremities, especially the right shoulder, can not be explained from the standpoint of circulation, nor likely from an anatomical basis.

OPINIONS

Gordon[11] states that therapeutic doses of serum produce a more marked reaction than prophylactic injection. Such a statement is not well founded since serum sickness is allergic in origin and depends upon the individual hypersensitivity of the patient.

"The more frequent occurrence of reactions after the injection of diphtheria antitoxin is

Submitted February 9, 1939.

The Authors

● Dr. Coons, Columbus Ohio, is a graduate of Johns Hopkins University School of Medicine, 1902; fellow American College of Physicians; senior attending physician at Mount Carmel Grant, and White Cross hospitals; member of medical staff Starling Loving University Hospital; director of pathology, Columbus Clinic, Mercy Hospital; emeritus professor of medicine, Ohio State University.

● Dr. Kirk, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1934; member Alpha Omega Alpha; instructor in surgery, Ohio State University; attending surgeon at St. Francis and Children's Hospitals.

probably due to the large doses and the fact that the patients are usually children; hence, the dosage is not proportionate to the body weight." (George Katz.[12])

"The relative rarety of cases in which it (serum reaction) has followed the use of diphtheria antitoxin has been thought to be due to the youth of the patients receiving it, for in general children are relatively immune to serum sickness and diphtheria antitoxin is given most often in young patients." (Kraus and Chaney[13].)

CASE REPORTS

Case 1. Mr. F. G. Age 17. Seen April 27, 1936.

Complaint: "Difficulty in the use of arms."

Family history and past history, negative. Had scarlet fever inoculation three weeks ago. Four other members of the family received serum at the same time with no unusual reaction.

At the end of one week the patient had an urticarial skin reaction. This was followed by nausea and anorexia. There was a low grade temperature. The joints became sore and slightly swollen. There was pain in the upper and lower extremities, more severe in the arms and shoulders persisting, to a minor degree, in the arms. For more than one week the patient was unable to feed himself. There was general weakness and and some loss in weight. No other complaints except chronic constipation. The patient has never had a serious illness.

Physical examination: Blood pressure 130/90. Pulse 84. Examination of the heart, lungs and abdomen, negative. Pupillary and patellar reflexes, present and normal. Good care has been given to the teeth. The tonsils are moderately enlarged. No fullness over the thyroid; no tremor of the fingers. There is atrophy of the muscles about both shoulders, especially the deltoids. Movement is painful in the shoulders and elbows. The arms can be flexed but not completely extended. There is some loss of motion of the thumbs and index fingers. Around the shoulders there is some loss of sensation.

Laboratory findings: The urine was negative both chemically and microscopically; specific gravity 1016.

Blood: Wassermann, anti-complimentary; Kahn negative. Haemoglobin 95 per cent; erythrocytes 5,000,000; leukocytes 9,200; Differential: polynuclears 58 per cent; small mononuclears 31 per cent; large mononuclears 8 per cent; eosinophiles 3 per cent. The sedimentation rate was normal.

At the end of fifteen months, the patient made a complete recovery except for a little atrophy and weakness of one finger and thumb of the right hand.

Case II—Mrs. A. S., age 32 years: This woman stuck a pair of scissors into her right hand near the wrist on February 7, 1938. It became mildly infected so that three days later she went to a physician who dressed it and gave her a prophylactic dose of anti-tetanus serum (1,500 units) after a negative skin test. This was given into the right deltoid muscle. The hand rapidly improved but on the sixth day after the shot she began to have malaise, sore joints, and muscles, mostly in the shoulders and wrists with urticaria at the site of injection. The pain became much worse, especially through the shoulders and was so severe that she walked the floor at nights. Analgesics helped only a little. This lasted approximately ten days before it subsided and left her with weakness of the shoulders. She then noticed that she could raise neither arm above 90° from the side. She was subsequently treated by two physicians before I saw her on April 30, 1938. At this time she had lost ten pounds in weight and complained of loss of strength in the shoulder muscles and atrophy of the shoulder muscles as well as occasional tingling in the right hand. There was no pain or swelling.

Physical examination revealed a well developed and well nourished white female in apparently good health. Examination was negative, except as stated below. The right scapula was prominent with atrophy of the rhomboid muscles and the supra and infrascapular muscles producing a typical "wing scapula". The deltoid muscles seemed normal as did the muscles of the arms and forearms. The left scapular muscles also showed atrophy without a wing scapula but inability to elevate arm beyond the horizontal. The neurological examination was otherwise negative. Blood pressure was 126/84. Urine negative. Wassermann negative. Blood count not done.

She was put on large doses of Vitamin B, massage, heat and graduated exercise. A systematized program of physiotherapy was later used. At the end of nine months she had completely regained the use of the scapular muscles, the atrophy had disappeared and she could elevate both arms to a vertical position over her head. At the end of one year a complete recovery has resulted.

With care and proper precautions serum accidents can be avoided. A careful history should be taken in regard to asthma and other allergic conditions and in reference to previous serum therapy. Regardless of the history skin tests should be made.

Various degrees of reactions occur in 85 per cent to 90 per cent of all patients. Perhaps 10 per cent show no manifestations regardless of the size of the dose of serum given. Serum sickness is more common and severe after the use of fresh serum rather than old preparations. The serum from some horses causes greater reactions than from others. The incubation period, as a rule, varies between six to twelve days, rarely as long as three weeks. The reaction may come on as soon as the third day, beginning as an erythema or urticaria, to be followed in three or four days by pains in the extremities, severe in the upper, less severe in the lower limbs. As a rule, there is swelling and tenderness of the lymph nodes, slight fever and sometimes chills. Nausea and vomiting are not unusual. All symptoms may subside to recur after several days. Severe reactions may occur while injecting the serum or perhaps at the end of one-half hour. No serum should be given without having at hand a hypodermic syringe filled with adrenalin or ephedrine.

Besides the more common and frequent forms of peripheral neuritis, following the injection of a foreign protein, we have types pointing directly to an involvement of the central nervous system.

I refer to the patient with optic neuritis, an edematous retina and swollen disc, ptosis, strabismus, diplopia, nystagmus, facial paralysis, husky voice, earache, tinnitus, deafness, hemiplegia, paraplegia, pseudotabes, and other sensory and motor disturbances.

Young,[14] in discussing neuritis following the use of various sera, divides the cases into two groups, the larger group, with peripheral nerve involvement; the second group, those cases with symptoms pointing to the central nervous system. The author speaks of the predilection of the disease for the upper extremities. The prodromal pains may be as severe in the lower as in the upper extremities.

In reviewing "some fifty cases", the upper and lower extremities were involved in four instances. Seven showed symptoms of meningitis. With meningeal symptoms the spinal fluid pressure is increased. There may be a few lymphocytes.

A toxic neuritis is not an unusual complication of diphtheria. Beretervide, Alurralde, and Ducco,[15] report a case of polyneuritis (pseudo-tabetic form) in a child who had not been treated for diphtheria by serum injections. After careful study, antidiphtheritic serum (5,000 units) was used even though neuritis as a sequella of diphtheria was already present. The patient improved and made a good recovery. These authors seemed to have considerable faith in the use of strychnine. A single injection of serum was given.

Peripheral neuritis may follow the use of vaccines but is exceedingly rare. The cases reported involved both upper and lower extremities. Complete recovery can be promised.

Before the administration of blood serum, the possible ill effects should be discussed with the patient, or perhaps better, with the immediate family. Skin tests should almost surely exclude so called "serum accidents". As for polyneuritis, no one can foresee it. Fortunately, such an ailment is remote and exceedingly rare. Above all, a good prognosis can be given.

TREATMENT

Massage, electricity and splints are prescribed. Strychnine, atropine and ephedrine have been recommended. For pain, analgesics may relieve. However, early in the case narcotics are usually required for the severe pain. In all forms of neuritis, to avoid criticism Vitamin B-1 should be given in large doses. In the great majority of cases, we have to treat a patient with involvement of the peripheral nerves. In a few instances there are symptoms and signs pointing to the central nervous system. In these cases, the fluid intake should be limited. Spinal puncture should be made periodically to relieve pressure. Intravenous dextrose and caffeine may prove beneficial.

SUMMARY

Considering the number of patients to whom serum is given the syndrome of polyneuritis following the use of serum is quite rare, but it does happen. Two new cases are reported. Physiotherapy and Vitamin B-1 are both indicated in the treatment.

370 EAST TOWN STREET.

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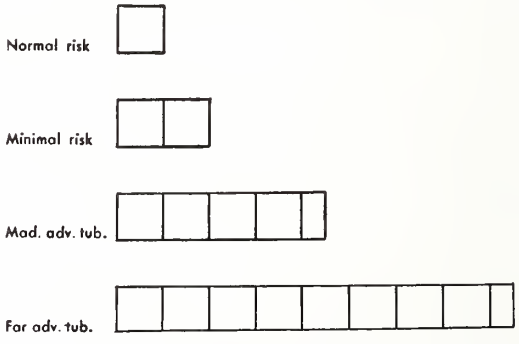
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RISK OF DYING INCREASED BY TUBERCULOSIS



The "normal risk" of dying, represented by the single square, is based on actuarial tables of the general public

The probabilities of dying from any given disease can be calculated by actuaries with a fair degree of accuracy. In a person with tuberculosis the risk of dying is increased and this risk is in direct ratio to the stage of disease as shown in above chart.

Isolation of Infectious Diseases and Aseptic Examination Procedures

MYRL M. MILLER, M.D.

CROSS infections in hospitals are the cause of a great deal of unnecessary morbidity and mortality, and cause great economic loss to the hospital where such infections occur. The occurrence of cross infection can be reduced to a minimum by proper isolation of patients and by proper medical and nursing technique. It should be emphasized that those diseases which are generally considered to be contagious are not the only sources of cross infections. Ordinary colds and other respiratory infections are as contagious as measles and chickenpox and spread like wildfire throughout infant wards. New born infants and infants who are debilitated by other diseases are particularly susceptible to upper respiratory infections. These, as well as many otherwise well infants, frequently succumb to infections contracted in the hospital.

All of us, whether we have colds or not, harbor billions of microorganisms in our respiratory passages and on our hands and clothes, which may be pathogenic to new born infants; and the danger is particularly great in the case of premature babies, due to their immaturity, debilitated condition and general lack of resistance. It is therefore obvious that no nurse who has a head cold, sore throat, cough or any other respiratory infection should be allowed on duty in a nursery or children's ward; and all nurses and doctors, whether infected or not, should take all possible precautions to minimize the danger of infecting infants and children entrusted to their care.

The following brief classification of contagious diseases according to their vectors and isolation requirements has been prepared in the hope that it might be informative and helpful in establishing standard regulations for the guidance of visiting physicians, house staffs and nursing personnel, and as a practical guide to the solution of some of the major problems involved.

ISOLATION OF INFECTIOUS DISEASES

Separate Wards or Rooms Obligatory

The following diseases (with the exception of rabies) are extremely contagious via the air.

Whooping cough, Measles, Chickenpox, Smallpox—Vectors: air, contact, fomites, carriers.

In the case of smallpox a separate, isolated wing or building should be provided.

Rabies—Vector: contact with saliva.

Submitted January 26, 1939.

The Author

● Dr. Miller, Akron, Ohio, is a graduate of Western Reserve University School of Medicine, 1926; fellow American Academy of Pediatrics; licentiate American Board of Pediatrics; visiting pediatrician and physican in charge of congenital syphilis clinic, Childrens Hospital; visiting pediatrician, Peoples Hospital, Akron.

Cubicle Isolation Obligatory When Separate Wards or Rooms Are Not Available

The following diseases are relatively less contagious via the air, and therefore, in case of necessity due to overcrowding, can be treated together in the same ward, provided strict cubicle isolation obtains.

Scarlet fever, Diphtheria, Tuberculosis—Vectors: air, food, milk, water, fomites, carriers.

Poliomyelitis, Encephalitis, epidemic—Respiratory or alimentary portal of entry undecided. Therefore Vectors not definitely known.

Meningitis, epidemic, Mumps, German measles, Influenza, Bronchitis, Pneumonia, Acute Nose Infections, Acute Throat Infections—Vectors: air, carriers, fomites.

Open Wards or Cubicles

The following diseases are not air borne and may be treated together in either cubicles or open wards, provided the strictest aseptic technique is practiced by nurses and doctors.

Gonorrhea, Impetigo, Erysipelas—Vectors: contact, fomites, carriers.

Typhoid fever, Dysentery—Vectors: food, milk, water, flies, excreta, fomites, carriers.

Florid Syphilis—Vector: contact.

NEW BORN AND PREMATURE INFANTS

Premature infants should be quartered in a separate nursery under strict isolation. No doctor or nurse should be permitted to enter the premature room without sterile cap, mask, gown and rubber gloves.

All new born babies with upper respiratory, cutaneous or gastro-intestinal infections should be isolated.

In all cases of transmissable disease, whether treated in separate wards or rooms, cubicles or in open wards, the strictest aseptic technique should be practiced by nurses and doctors. This applies not only to those diseases which are commonly isolated, such as the acute exanthemata, but also

to acute respiratory, cutaneous and gastro-intestinal infections. Any patient with a head cold, sore throat, cough, discharging ears, bronchitis, pneumonia, tuberculosis, enteric fever or dysentery, impetigo, furunculosis, erysipelas, or florid syphilis with snuffles or cutaneous lesions, as well as any of the acute contagious exanthemata, should be isolated, examined and treated as an infectious patient, to wit:

(a) Gowns for all cases.
(b) Masks for all air borne diseases and in all infant wards.
(c) Gloves for smallpox, rabies, gonorrhea, impetigo, erysipelas*, florid syphilis, typhoid fever* and dysentery*, and in the premature nursery.
(d) Scrubbing of hands.
(e) Disinfection of examining instruments.
(f) Disinfection of excreta.
(g) Sterilization of dishes, utensils and linen.
(h) Prohibition of intercommunication and transfer of nursing personnel.
(i) Regulation and limitation of visiting.
* Optional.

ASEPTIC EXAMINATION PROCEDURES

1. The doctor should don a mask and gown before proceeding to the examination of patients. On contagious disease wards, where all the patients have the same disease, the gown and mask need not be changed between patients unless contaminated by the examination of a patient with some secondary infection. Before going from one ward to another or from one patient to another with a different disease, the gown and mask should be changed.

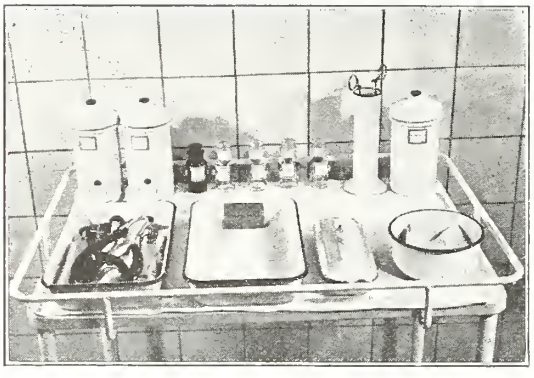


Fig. 1.

2. In making rounds on non-contagious wards the doctor need not change his gown before proceeding to the next patient if the last patient examined is not infectious. If the last patient examined is infectious the gown should be changed unless it has not been contaminated by contact with the patient or his bedding.

3. The nurse who handles the child in assisting with the examination should wear a gown and a mask. Her gown should be changed in every case before going to another patient.

4. Masks need not be changed except on contagious disease wards as noted in paragraph 1.

5. The nurse's gown should be hung in the cubicle, clean side in, on the wall opposite from the bed. Gowns should be hung far enough from the front of the partition so that they cannot be contaminated by anything in the next cubicle.

6. Doctor's and nurse's hands and all instruments used should be disinfected after every examination.

7. The head nurse should accompany the physician making rounds. She should stay clean and carry the charts and hand the doctor instruments from the examination cart. She should have two assistants, the first to assist the doctor with the examination and dress the child while the second is undressing the next patient to be examined.

EXAMINING EQUIPMENT

A physician making ward rounds must have some simple, practical system which will enable him to examine a large number of patients rapidly and efficiently, with a minimum of irritating delays and lost motion, and without contaminating his patients, himself or his examining equipment. To accomplish this the examining equipment should be arranged so that everything is conveniently available, and in such a manner that instruments may be picked up without contaminating any other part of the equipment. Provision for the rapid disinfection of all instruments used is essential.

The ordinary tray of instruments is unsatisfactory because it does not fulfill any of these requirements. A dressing carriage on wheels is a very great improvement over the ordinary instrument tray because all of the equipment necessary for a complete examination, as well as for minor treatments, may be easily transported from place to place with a minimum of handling. Such a cart saves a great deal of time ordinarily wasted in sending a nurse after additional instruments. It also provides ample space for materials used in cleaning the instruments after each examination.

The following equipment is displayed on the cart used by the author:

TOP SHELF

A large deep instrument tray containing otoscope, flashlight, reflex hammer and stethoscope.

Another similar tray for contaminated instruments.

A jar containing ear speculums in alcohol.

A jar containing tongue depressors.

A jar containing a towel or gauze soaked in antiseptic solution.

A jar containing sterile gauze wipes.

A jar containing sterile cotton balls.

A jar containing long, cotton tipped applicators.

A jar containing toothpick swabs.

A jar containing dressing forceps in antiseptic solution.

A small instrument tray containing antiseptic solution.

1 bottle of ether, 1 bottle of peroxide, 1 bottle of alcohol, 1 bottle of mercurochrome and 1 bottle of tincture of iodine or other desired antiseptic.

BOTTOM SHELF

On the bottom shelf are kept a supply of sterile towels, rubber gloves, culture tubes and extra masks; also those articles which are used relatively infrequently such as blood pressure manometer, ophthalomoscope, mouth gag and a small tray containing sterile wire ear applicators and paracentesis knife.

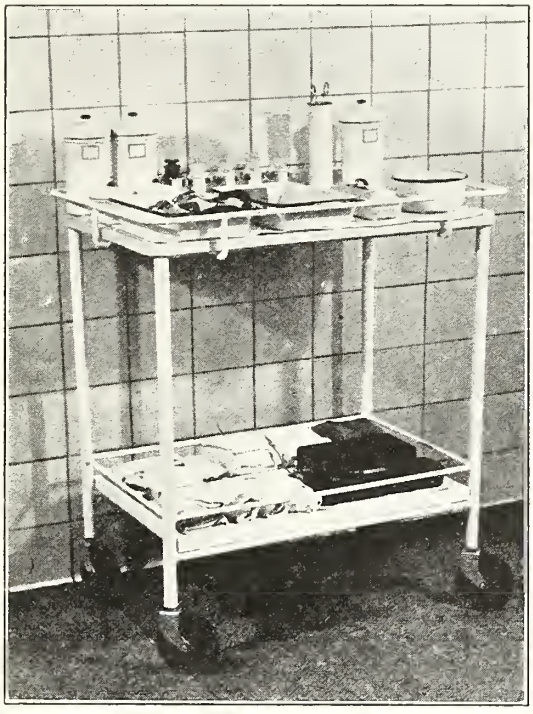


Fig. 2.

If a separate cart is not available for surgical dressings the following items may also be carried on the bottom shelf; tray of dressing instruments, gauze drains, adhesive tape, bandages and dressings.

PROCEDURE

1. The head nurse or other clean assistant hands the doctor each instrument in turn, using the dressing forceps to procure tongue blades, gauze, cotton applicators and speculums.

2. As the doctor finishes using each instrument it is placed in the contaminated instrument tray.

3. The nurse assistant cleans speculums with a cotton tipped applicator dipped in alcohol, wipes them clean with the antiseptic soaked towel and drops them back in the alcohol jar.

4. All other instruments are carefully wiped with the antiseptic soaked towel and placed in the clean instrument tray.

It should be understood by all concerned that any instrument in the second tray is contaminated and must not be used again until it has been disinfected.

With this procedure the table and all other equipment not in use are kept clean and uncontaminated; one knows which instruments are clean and which are contaminated; and no patient is ever examined with grossly contaminated instruments.

The towel or gauze used in cleaning instruments is soaked in some antiseptic solution such as alcohol, lysol, bichloride of mercury, aqueous solution of metaphen or merthiolate, liquor hexylresorcinol S.T. 37, or Bard Parker germicide. Lysol in effective concentration is too hard on the hands and is malodorous. The cost of some of the newer antiseptics is prohibitive. Bichloride has the disadvantages of not being as effective as some of the newer germicides and of being corrosive to metal. However the corrosive action from wiping instruments with bichloride solution is not very great. The author uses bichloride in a dilution of 1 to 2,500 for cleaning instruments, and Bard Parker germicide in the small instrument tray for sterilizing ear applicators and paracentesis knife.

It is realized that instruments wiped with an antiseptic solution are not sterilized. However, complete sterilization is impractical because of the time factor, and multiple sets of examining equipment are out of the question because of the cost. It is felt that instruments carefully wiped with a potent germicide, which stay wet with the solution for some time, are at least clean, and not grossly contaminated, and that relative asepsis is definitely better than no attempt at asepsis at all.

The same thought applies to masks, about the efficacy of which there is still some controversy. It is well known that the ordinary cloth mask is not impervious to droplet infection. However, the author feels that even a poorly made mask is better than no barrier at all. An attempt to devise more efficient masks is being made at the present time; one consisting of a simple double layer of muslin with an opening between the two layers along one edge, into which a layer of towel paper may be inserted. Another type being tried out is made of cellophane.

CONCLUSIONS

1. Hospital cross infections which cause unnecessary morbidity and mortality can be minimized by proper isolation of patients and by proper medical and nursing technique.

2. The procedures described enable a physician to examine a large number of infectious patients rapidly and efficiently without contaminating his patients, himself or his examining equipment.

Picrotoxin In The Treatment of Barbiturate Intoxication

With Report of a Case

JAMES T. STEPHENS, M.D., and JOHN P. ANDERSON, M.D., F.A.C.P.

IN certain districts, the ingestion of large quantities of barbituric compounds has become one of the favorite modes of attempted suicide, and hence instances of barbiturate intoxication are becoming increasingly numerous. A considerable proportion of these terminate in death. The records of a large Cleveland Hospital in which many cases of this type are treated reveal a mortality rate of 23 per cent. Most of these deaths are caused by respiratory failure as the result of depression of the function of the medulla.

Although it has been known for many years that picrotoxin stimulates the autonomic centers and that it counteracts successfully the poisonous effects of excessive doses of drugs, such as chloral hydrate, paraldehyde, and sodium bromide, it has only recently been used clinically as an antidote for barbiturate poisoning. When this drug is used along with symptomatic and supportive measures, numerous authors have shown that it is truly a life-saving agent.

According to Solis-Cohen[1], picrotoxin is obtained from *Cocculus Indicus* which is the dried fruit of *Anamirta paniculata*, a climbing shrub indigenous to the East Indies. It has long been used as a parasiticide in the East. The drug is a neurovascular tonic stimulant. All the autonomic centers are affected, and hence the salivary secretion is increased by stimulation of the nucleus of the chorda tympani, while the heart action is slowed by stimulation of the vagus center. Stimulation of the oculomotor center causes contraction of the pupils. Similarly, dilatation of the skin vessels and sweating produce a decrease in body temperature. In toxic doses, picrotoxin paralyzes the bulbar centers and gives rise to tremors and convulsions.

In 1875, Browne[2] discovered that picrotoxin protected rabbits against five to eight times the minimal lethal dose of chloral hydrate, and in the next few years, this was confirmed and similar results were observed with paraldehyde and sodium bromide. These experimental findings did not lead to any clinical use of picrotoxin.

Recent interest in this substance was aroused in 1931, when Maloney and his associates,[3, 4] in searching for a drug to offset the effects of barbiturate poisoning, found that picrotoxin produced both respiratory and vasomotor stimulation more effectively than other so-called medullary stimulants. They showed by experiment that in the lungs of a dog killed by a fatal dose of amytal, no functioning alveoli remained; whereas in another dog which had received the same dose of amytal (150 milligrams per kilo), but had been treated with picrotoxin until sacrificed at the time of the untreated dog's death, there were only patches of pulmonary congestion, with an abundance of functionally efficient alveoli. These authors thereby demonstrated the antidotal powers of picrotoxin against the action of the barbiturates, and initiated the use of an effective weapon against this form of poisoning.

The first clinical case in which picrotoxin was used successfully in barbiturate depression was reported by Arnett,[5] in 1933. More convincingly, Koppany, Linegar and Dille[6] employed it to advantage in two cases, though one patient succumbed to a complicating bronchopneumonia. Kline, Bigg, and Whitney[7] reported its successful use in one case.

In the enthusiasm for the use of picrotoxin in these cases, the need for the measures to promote barbiturate excretion, as advocated by Gower and Van de Erve,[8] must not be overlooked. Recently, Bleckwenn and Masten[9] reported six cases in which picrotoxin was used, but they also stressed the importance of gastro-intestinal lavage and supportive therapy.

The following case is presented to augment the rapidly accumulating evidence for the use of picrotoxin as an antidote to barbiturate intoxication, and to re-emphasize the need for concomitant symptomatic and supportive treatment.

CASE REPORT

A young woman, aged 20 years, was admitted to the emergency room of Glenville Hospital on

From the Medical Department of Glenville Hospital.
Submitted November 12, 1938.

The Authors

Dr. Stephens, Cleveland, Ohio, is a graduate of Jefferson Medical College, 1937; member Nu Sigma Nu; Alpha Omega Alpha; interne member, Academy of Medicine of Cleveland; resident at Glenville Hospital, Cleveland.

Dr. Anderson, Cleveland, Ohio, is a graduate of University of Toronto Faculty of Medicine, 1920; member American Heart Association, American Board of Internists; senior consultant at Charity Hospital; consultant at Woman's Hospital; physician in chief, Glenville Hospital, demonstrator in medicine, Western Reserve University.

September 17, 1938, at 1:15 A.M. Forty-five minutes earlier, with suicidal intent, she had swallowed 72 grains of sodium amytal, and was unconscious when she was brought to the hospital.

A brief examination revealed that the patient was in a comatose state. She could not be aroused and failed to respond to the usual methods of stimulation. Her body was cold and clammy; the temperature was 96 degrees Fahrenheit. The pulse rate was 92; the respirations, only 14 each minute. Corneal and pupillary reflexes were absent; the pupils were of pin-point dimensions, and equal. The reflexes were absent throughout except for slight responses of the patellars.

The patient was admitted to the women's ward immediately, and was treated for collapse with external application of heat and the injection of strychnine sulfate, grains 1/60, subcutaneously. Her condition did not improve during the night. No picrotoxin was available in the hospital, but it was ordered early in the morning. At 8:00 A.M., caffeine-sodium benzoate, grains 7½, was given intravenously. This was followed by continuous intravenous infusion of a solution of 5 per cent glucose in normal sodium chloride. Caffeine was administered again at 11:00 A.M. Throughout the morning, efforts to obtain picrotoxin had been unsuccessful. At 12:00 noon the patient began to have clonic convulsions, which apparently were due to anoxemia, since these could not have been caused by the medication she had received. Her respirations were shallow; she displayed marked cyanosis, and mucus was collecting in the air passages. The blood pressure at this time was 84 systolic, 40 diastolic.

TABLE 1

EFFECT OF ADMINISTRATION OF PICROTOXIN IN BARBITURATE INTOXICATION

Time	Dose (Mgm.)	Response
12:30 P.M.	6	Some disappearance of cyanosis
1:45	6	No change
2:15	6	" "
2:35	6	" "
3:40	6	" "
4:10	9	" "
4:40	9	" "
5:25	18	Respirations 22 per minute
6:00	6	No change
6:50	9	" "
7:25	9	" "
7:55	6	" "
9:00	6	" "
10:20	6	" "
11:30	9	" "
12:30 A.M.	6	" "
2:30	6	" "
4:30	6	" "
6:00	6	Corneal reflexes present
9:00	6	Pain from supraorbital pressure
11:15	9	No change
12:00	6	Corneal, pupillary and pain reflexes present

Finally a supply of picrotoxin was received and the first dose was administered to the patient at 12:30 P.M.; 6 milligrams were given by vein at the rate of 3 milligrams per minute. Immediately, the cyanosis decreased and the respiratory rate increased. The administration of oxygen through the nose was then started, and the patient was placed in the shock position. In the following 24 hours, picrotoxin was administered in varying doses of 6 to 18 milligrams, at intervals of 15 to 60 minutes. (Table 1). Before each dose, careful observation of corneal, pupillary, and pain reflexes were made. Strychnine sulfate, grains 1/60, was given following the fourth dose, and caffeine intravenously after the 15th dose of picrotoxin. At the end of 24 hours, 6,000 cubic centimeters of glucose-sodium chloride solution had been injected by vein and hypodermoclysis; the patient was voiding frequently and copiously. Sucrose, 50 cubic centimeters of 50 per cent solution, was given by vein nine hours after the administration of picrotoxin had been started. Sixteen hours after the first dose of picrotoxin, the patient responded to corneal irritation, and groaned when supra-orbital pressure was applied. Additional doses of picrotoxin were given after this, to allay the danger of a recession into deep coma. At the end of 24 hours, the administration of the drug was discontinued; the total quantity used was 156 milligrams. Since gastric lavage was omitted, and no emesis occurred, it is to be emphasized that 72 grains of sodium amytal were absorbed, and had undoubtedly exerted their full narcotizing power.

On the morning of September 19, 54 hours after she had taken the barbiturate, the patient was sitting up in bed, taking nourishment by mouth, and answering questions in an intelligent manner. Her temperature had risen to 104 degrees Fahrenheit on the first day in the hospital, but had dropped steadily thereafter, reaching a normal level by the end of the third day. No signs or symptoms of pneumonia appeared during the patient's convalescence, and she was out of bed on the fifth day, and discharged from the hospital on the sixth. Two weeks later, she was in good physical condition, and displayed no evidence of ill effects from the episode.

SUMMARY

A case of barbiturate intoxication in a young woman, aged 20 years, is reported, in which 72 grains of sodium amytal were ingested and evidently absorbed, since no emesis occurred. The patient was comatose and displayed signs of marked anoxemia, with cyanosis, reduced respirations, and clonic convulsions. After the administration of 156 milligrams of picrotoxin over a period of 24 hours, together with large quantities of fluid intravenously, the patient regained consciousness and recovered rapidly. Within a few days, she was entirely well.

This instance furnishes additional evidence of the clinical efficacy of picrotoxin in counteracting barbiturate intoxication. This drug is not employed as a substitute for the symptomatic and supportive measures which have been used in the treatment of cases of this kind, but as an active adjuvant to these procedures.

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References 5 to 9 omitted because of lack of space, will be published in reprint of above article.

Rheumatic Heart Disease

RAYMOND A. LEWIS, M.D.

ONE of the most important and difficult problems of medicine today is rheumatic heart disease. It constitutes 40 per cent of all heart disease, and 95 per cent of all organic heart diseases occurring in persons under the age of 20. It is one of the chief scourges of youth, killing and crippling young adults and children.

The expression "Rheumatic Heart Disease" is not strictly accurate, for many of the so-called rheumatic heart disease patients do not give a clear history of a recognizable rheumatic infection or chorea, but of some allied disease or ill-defined infection. Nevertheless, in view of the highly specific lesions to be found postmortem in these hearts and elsewhere, one must consider them rheumatic in origin and the result of a low-grade and atypical form of the disease which often manifests itself by symptoms of poor health.

The etiology is unknown, but most authorities consider it to be streptococcal in nature. There are strong familial and constitutional types which are usually affected. Some men are of the opinion that there may be an allergic basis for this infection. Seasonal and regional distribution are important factors also. The colder and wetter parts of the temperate zone favor these infections. Crowding and insanitary conditions, exposure to cold, fatigue, and malnutrition are predisposing factors.

PATHOLOGY AND LABORATORY FINDINGS

It is probable that in all cases of rheumatic infection, however slight or transit, there is some pathology in the heart. It was demonstrated at the House of The Good Samaritan in Boston that practically 85 per cent of the cases of rheumatic fever, and 41 per cent of the cases of chorea had shown, upon postmortem examination, evidences of rheumatic carditis even when the physical examination was found to be negative. The heart lesion in rheumatic infection begins with an inflammatory reaction around the arterioles and consists of groups of mononuclear cells and a few giant cells which are called Aschoff bodies, and when found in the heart, they are considered as pathognomonic of the activity of rheumatic infection. The fibrosis which may subsequently develop in these bodies produce peculiar nodules.

One must think of rheumatic heart infection as being essentially a pancarditis and not simply an endocarditis. As a rule, the pericardial and myocardial involvement clears up, leaving only an endocarditis with the resulting deformity of the valves. The typical rheumatic endocarditis consists of tiny vegetations of thrombotic nature appearing at the line of closure and not at the edge of the valves. A rheumatic infection is typically a slow one; it is chronic in nature and has a tendency to recur with a fresh invasion of the heart superimposed upon previously healed lesions. In a given series of cases it has been shown that the valves most commonly involved are the mitral alone 62 per cent, while the mitral and aortic involvement is 33 per cent.

In the interpretation of murmurs in the hearts of these patients, one must differentiate as to whether the murmur is due to a previous infection or a left ventricle dilatation. A murmur appearing within a few days or weeks is usually due to dilatation or to some previous valvular damage. If the latter is the case, one is not witnessing the first attack of rheumatic infection. A murmur appearing after the patient has recovered from the infection is usually due to valvular deformity resulting from the recent infection. A mitral mid-diastolic murmur heard early in the course of the disease is no longer thought to be a mitral stenosis, for it requires many months or a few years to establish a mitral stenosis.

SYMPTOMS

The symptoms depend upon the severity of the infection. The younger the subject is the more the heart is involved and the less the joints are involved. While in the older individuals the joints are more involved, and the damage to the heart is less. The onset may be abrupt or insidious. It often follows acute tonsillitis or an upper respiratory infection. Among those children who had had their tonsils removed there were 37 per cent fewer cases of rheumatic fever[7]. The patient may complain of pains in one joint or another, show moderate fever and begin to perspire. In children showing symptoms of repeated vomiting spells, epistaxis, muscular twitchings, chorea, or vague or transit muscular pains one should be apprehensive of rheumatic infections, for it is these symptoms which the

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The Author

Dr. Lewis, Dayton, Ohio, is a graduate of Ohio State University College of Medicine, 1923; member senior medical staff, chief of medicine, Good Samaritan Hospital, Dayton.

atypical cases present. About one-third of the individuals suffering from rheumatic carditis give no definite history of rheumatism. And it is usually in these atypical cases that we find serious heart damage due to the fact that their symptoms were not properly diagnosed, and consequently not treated.

There are four kinds of rheumatic hearts with which we must deal: 1. Fulminating type: After the heart becomes involved, the disease runs a very rapid course; the temperature is high; leukocyte count is high; and there are marked signs of cardiac failure. Death occurs within about two weeks. 2. Subacute or chronic: The activity of the infection in this group never disappears. There is a gradual loss of cardiac reserve. This type may run a course of from one to five years. 3. Recurrent type: This is the most common form. The periods of activity manifest themselves every few years, and most of these patients die before they reach the age of fifty. 4. Inactive type: This type usually displays only one attack resulting in a carditis. The infection never returns, and the patient lives his normal span of years. (After a case of rheumatic heart disease has been diagnosed, one should strive through treatment to bring about this inactive type).

TREATMENT

The most important factor determining the management of these cases is whether or not there is an active rheumatic infection manifested by general poor health, weakness, low-grade fever, and leukocytosis. As a rule, the regression of these symptoms is so gradual that the disease passes from an acute stage to a chronic stage. In this respect, rheumatic fever is more comparable to tuberculosis than to the infectious diseases. Exacerbations are frequently noted in those individuals who have been allowed physical activity too soon after the acute stage of their illness. These patients should be kept absolutely at bed rest as long as there is clinical evidence of the active disease. Therefore, the criterion for permitting a patient to leave his bed is the general improvement of health: A temperature not over 99 degrees, a normal corrected sedimentation index not over 0.38 mm. per minute, leukocyte count not over 10,000, and electrocardiograph as manifested by normal P. R. intervals. Salicylates or aspirin may be used to alleviate the symptoms, but they do not shorten the course of the disease, and often they mask the guiding symptoms, which leaves one with a false sense of security. Their use over a prolonged period of time tends to depress the immune bodies. A nourishing, high caloric diet, cod-liver oil, plenty of sunshine and fresh air are of great value in building up immunity. It is essential that these children gain weight, for their weight may be used as a yardstick in measuring the activity of infection. Tonsils, adenoids, and foci of infection should be removed when the active rheumatic infection seems quiescent. If possible, the patient should avoid any respiratory infections. If contracted, the earliest possible treatment is of the utmost importance.

Patients of the inactive type should not necessarily have their activities limited, but they should be encouraged to participate in activities within the limit of their functional reserve. Strict limitation of their activities often results in making "cardiac" invalids out of them. However, they should be advised to avoid competitive sports, unusual fatigue or exertion, and limit their activities to forms of exercise that do not cause dyspnea. Dyspnea and the size of the heart are important factors in determining the degree of cardiac reserve. The size of the heart should not measure over 50 per cent of the inner diameter of the chest. It is in this inactive group that there may be a complete disappearance of all physical signs of valvular disease after a few years.

In the treatment of congestive failure children fail to respond satisfactorily to digitalis. It is usually given, but they are not completely digitalized. It is found to be used best in cases of auricular fibrillation. If there is any gastric irritation, the drug is curtailed. Salyrgen, 1 cc. once or twice a week is of great value to diureses. There is no specific remedy to combat congestive failure in children. And when death occurs, it is caused by the rheumatic infection rather than by a true heart failure, or by the mechanical effects of valvular heart disease.

The use of serum is still in the experimental stage. Both favorable and unfavorable results have been reported. There have been some very favorable reports made upon those cases of children suffering from rheumatic heart infection who have been transported to sub-tropical climates such as Florida and Porto Rica. The absence of respiratory infections in those climates together with sunshine, mild temperature, and seasonal changes are favorable factors in preventing recurrences in these cases.

PROGNOSIS

As a rule, the earlier in life that the cardiac involvement appears, the shorter is the patient's life. The heart damage is greater in those cases in which the recurrences are frequent. Later on, in adult life there is far less danger of rheumatic attacks, but it may result in one of three other risks: The onset of auricullar fibrillation, congestive heart failure, acute or sub-acute bacterial endocarditis.

SUMMARY

Rheumatic infection is a systemic infection rather than one confined to the heart and joints. The symptoms may be extremely insidious, hav-

ing no well-defined history of rheumatism. It is for this reason that the expression "Rheumatic Heart Disease" is not an accurate one, but one that is classified as such because of the specific lesions. The valvular involvement may not manifest itself until later. A stenosis of the valve usually requires a minimum of two years.

The treatment should be directed principally toward the rheumatic infection rather than toward the heart. Congestive failure in children is due not to mechanical disability, as is often the case in an adult's heart disease, but it is due to the reactivation of the infection.

The patient should be kept at bed rest until all signs of activity of the infection have ceased. This will be manifested by a normal corrected sedimentation rate, normal P.R. intervals in the electrocardiograph, and a normal temperature; the leukocyte count should not be over 10,000, and the pulse rate within normal limits. The size of the heart, which should not measure over 50 per cent of the inner diameter of the chest, and the presence of dyspnea should be the controlling factors for the degree of activity of the patient.

There is justifiable evidence that the transportation of children suffering with rheumatic heart disease to a sub-tropical climate has a very beneficial effect upon their recovery.

2706 E. THIRD STREET.

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A woman sat on a porch darning socks. She put the needle into her mouth to get some more thread. Her sister made a funny remark, she opened her mouth to laugh, and swallowed the needle. For months she had severe pains in her stomach, and then only occasional pains in various parts of the abdomen. Seven years later she began to have frequent and painful urination. I passed a cystoscope, saw the needle sticking into the bladder, caught it with forceps and removed it through the urethra, with complete relief of pain.—Hugh H. Young, Baltimore.

Treatment of Asthma

Hermann introduced aminophylline, 7½ grains in 10 cc. of physiologic saline solution given slowly intravenously. Apparently this is a real help in stubborn cases and usually gives relief. It cannot be given frequently; once or twice in 24 hours is usually sufficient.

Another intravenous treatment is the use of a very weak solution, 10 cc. of 1:1500 dilution, of hydrochloric acid; this occasionally seems to be of slight value. The dilute hydrochloric acid by mouth, in dosage ½ to 2 drams in a cup of orange or lemon juice three times a day before or with meals, often helps.

In extreme cases the use of anesthesia is indicated. The rectal anesthesias often have a bad after effect—that is, colitis of varying degree. Ether and oil equal parts given per rectum in doses of 5 to 7 ounces works fairly well. Avertin, in doses 60 mgm. per kilo, may be helpful; either of these can and do give colitis. Chloroform by inhalation can be easily controlled and is effective except that the danger of acute yellow atrophy of the liver is always present.

Last among the drugs used for relief of acute severe asthmatic attacks is oxygen alone or combined with helium; 1 to 3 is the dilution. This requires a special apparatus because of the extreme volatility of helium. However, it loosens secretions nicely and is a definite aid. The atelectatic lung and mucus plugging the bronchi respond especially well.

The pillows and mattress may be covered with so-called allergen-proof material sold by several commercial firms.

During the acute attack practically nothing toward a more permanent relief of the asthma can be done except to relieve the acute attack. Adrenalin, ephedrin, and cocaine completely blank the skin tests. Therefore the patient must be free of these drugs as well as the opiates for 12 to 24 hours before tests for sensitization are attempted.

The use of iodized oil has had its favorable attention but is fast being discarded.

The use of deep therapy X-ray is again receiving attention. An occasional asthmatic patient with profuse thick mucoid sputum will receive benefits; also diathermy gives slight temporary relief but, again, permanent benefit is lacking. The use of the asthmatic powders and cigarettes are helpful in mild cases but offer no lasting effect.

In the group of treatments for which there is no rational and which have fallen into justified disuse is urinary proteose, subcutaneously, and peptone intravenously.—T. D. Cunningham, M.D. and J. C. Mendenhall, M.D., Denver, Colo.; Rocky Montain Med. Jour., Vol. 36, No. 2, February, 1939.

Management of a Case of Pollen Hay-Fever With or Without Associated Asthma

JONATHAN FORMAN, M.D.

MOST patients seek relief from their hay-fever because their symptoms are so distressing that they interfere with their work. There, however, is a more important reason for taking treatment for this condition and that is the prevention of asthma. More than two-thirds of untreated cases of hay-fever sooner or later develop some asthma. The same treatment which relieves the hay-fever protects the membranes of the bronchial tubes against asthma. In fact, it is easier, as a rule, to prevent the asthma than it is to get complete relief from the hay-fever although both can be done.

1. If it is possible, and it usually is, the patient should have skin tests for sensitization with all of the pollens which come out at the time when the patient has his hay-fever. Only the pollens of those plants should be used which grow in that part of the country and are abundant enough and light enough to be wind-borne, are to be used in this testing. If the history of the case brings out that the hay-fever occurs at a time when the common pollens are not yet abundant enough or have begun to disappear, the spores of common fungi should be suspected. For instance in July or in the first week in August hay-fever may well be caused by a sensitization to the spores of the Alternaria. The simple pollen testing will suffice in the uncomplicated case. If the patient gives a history of having frequent "colds" throughout the year, sinus trouble, "morning sneezes," or blocking of the nose at other seasons of the year, then it becomes necessary to test with the other inhalants such a feathers, animal eminations, orris root et al.

2. It is always best to attempt to gain complete tolerance for those pollens which turn out to be important, by taking carefully graduated injections of the extract of these same pollens. Occasionally we encounter some one who has a prejudice against "serums." To these we can say:—"The materials used for the injections are not serums nor are they vaccines. They are in fact only extracts of the pollens which the patient is bound to absorb when the next blooming season comes around. They cannot avoid taking this same material into their system in the same or greater doses. It is then only a question of the time and the amount of preparation, for during the pollen season every man, woman and child absorbs large doses of these same pollen extracts into their bodies. So the patient is going to take this treatment material into his system whether he wants to or not. Would it not be best to do this gradually and gain a tolerance like other people have or to wait and undergo the shock of having it literally dumped into his blood stream without any preparation? If he takes it slowly in carefully graduated doses, he can build a tolerance, whereas, if he waits and gets a huge dose all at once, he not only gets no tolerance, but also loses a little of the small amount which he has left from last season. Hence, there is every good reason for taking the treatment and none for not so doing."

3. The best time to start these treatments for pollen hay-fever and asthma is **now**. In other words, "the sooner the better." For instance, if it happens to be the middle of the season, properly planned treatment will give a lot of relief. The longer we have before the season, the better the result which we as a rule obtain. Indeed, as Vaughan has said, **"Now is the time to begin for year after next."**

4. The patient must understand clearly that the principle involved in this form of treatment is that of gaining tolerance. If he were recommended to take an unusually fatal dose of a narcotic drug on August 16, he would prepare himself by taking increasingly larger doses until he could tolerate the big dose at the appointed time. So here the principle involved is to begin with a very weak extract and gradually increase the strength at **regular intervals**, and in this way increase the tolerance to the pollens which cause his hay-fever and/or asthma. Therefore, it is of the greatest importance that he follow the schedule and report regularly and without fail, for the injections. If treatments are missed, valuable time is lost. If the wait between injections is too long, the tolerance will drop (I figure 5 per cent per week), and the next dose will have to be cut down from the scheduled strength.

5. This interval will vary, depending upon how long before the season begins and how much tolerance he may already have.

6. We give the patient a little envelope with two ephedrine capsules and instruct him to bring these to the office with him. They are to be taken by mouth in event he develops a reaction follow-

This is one of a series of editorial summaries on the management of certain diseases.

ing the treatment (hives, sneezing, or asthma). Usually, a local wheal develops and is of little more than a passing annoyance. If the local reaction is more marked, alcoholic rubbing solution or cold compresses will as a rule, suffice to allay the discomfort. The compresses are laid upon the site, and great care should be taken not to rub the area, as this may hasten absorption, thereby increasing the symptoms. The general reactions demand more attention when they occur. They usually occur after the sixth injection and before full tolerance has been gained. Because of the possibility that they may occur we insist that the patient stay in our office a full thirty minutes after each injection and that when he leaves the office he have in his purse the two ephedrine tablets which we have given him with these instructions. The injections should never be taken when he is unusually tired or exhausted from the heat. We like to have him come in the late afternoons so that he will not take the more violent forms of work and exercise, as these will bring on reactions. He is expected to remain as quiet as possible for the rest of the day.

Precautions: If the wheal at the site of the injection shows a tendency to flare up, if minute pin-point wheals surround the reaction at the site of injection, if the palms of the hands or the nose begin to itch, if the patient begins to sneeze or develop hives, or a tightness in the chest, he swallows one of the capsules with water at once. The full effect of this ephedrine is obtained shortly, so that in one-half hour he may take another.

When he reports for his next treatment, he should always advise us of any itching or sneezing, or symptoms that he had following his last treatment before he gets his next injection. This is to avoid reactions.

7. Where the patient has not been completely tested, it is best to have him make his room allergen free by taking out the carpet and using only a washable throw rug; removing window drapes, pictures and everything which collects dust. The pillows on the bed should be encased in specially rubberized material so that the feather dust will not get into the room. The room and its simple furniture can then be dusted by rubbing with a muslin cloth impregnated with plain mineral oil. It will also be found advantageous to eliminate from the diet for the duration of the season, celery, tomatoes, chocolate, cucumbers and all other members of the melon family.

8. The amount of relief that will be experienced during the next hay-fever season will depend upon the amount of tolerance the patient has gained, and the amount of exposure to which he happens to be subjected. There is a quantitative relation between the amount of pollen which is breathed in and the degree of tolerance gained. This tolerance will be inadequate, adequate or more than adequate, and the relief will be according. There may be no symptoms at all or if the crop is unusually good, there may be a few days of trouble when the pollen crop is at its peak, and the concentration in the air is heaviest; at such times symptoms may develop for a few hours or a day and then the amount of pollen will return to a point below the tolerance and the symptoms will disappear.

9. Have no cut flowers of any description in the patient's house.

10. See that the weeds in the vicinity of the patient's house are cut before they bloom, and that they are kept cut at least once each month.

11. The patient must not take long rides through the country, play golf, or otherwise overexpose himself to the pollen. He has just a certain definite tolerance and whenever it is not adequate to his exposure, he will have symptoms.

12. The patient must avoid the non-specific factors which will bring on attacks—dusty roads, house cleaning, chilling from going in swimming.

Bathing: The patient is warned against going into open pools or rivers during the height of the season. He is told to take baths in a warm room in the morning rather than the evening—warm water—not hot—and be sure to dry off completely before coming out of the bath room.

In addition to the danger of the chilling bringing on an attack of hay-fever, there is always the danger of an infection from a public pool with its head colds and sinus trouble. These added to a hay-fever, lay the ground work for a permanent invalidism.

Exercise: It is to be remembered that getting heated and cooling off quickly will bring on an attack. As unnecessary as it seems, hay-fever victims must be continually cautioned against out-of-doors sports during the season.

Diet: For the patient who is sensitive to certain foods, special elimination diets have to be planned. For the rest, plain, simple foods, not too rich, should be taken. Always make the noon meal the heavy one of the day and the evening meal a light one.

13. The patient should keep the windows of his sleeping quarters closed all the time so that the pollen in the room will settle to the floor, then be careful not to stir it up when he goes to his room. With the windows closed he also avoids the cooling of the room which in itself often brings on an attack. Then too, the air at sunrise is the richest in pollen. He is not to sleep in drafts or on sleeping porches. If the windows must be kept open, there should not be a cross ventilation. A wet sheet hung one foot

inside the open window will stop some of the pollen—sometimes enough if his tolerance has been raised to nearly an adequate level. If the windows are kept closed, the air may be kept in circulation by means of an electric fan. This will add to the patient's comfort. The fan, however, should not be directed toward the body of the patient or the floor or any object likely to give off dust. The windows should be closed in the daytime as well as at night to keep out as much pollen as possible.

14. Constipation should be avoided largely by the use of the diet.

16. **Care of the Nose:** A benzedrine inhaler (Smith, Kline & French) is a convenient and satisfactory way to keep the nose open. This may be purchased at any drug store. Care should be exercised not to take more than two or three whiffs in each nostril and not oftener than once an hour.

Of the nose drops, I prefer very much those with a watery base. These are all to be used in the same way. Often they are not equally effective in the same person. If the particular one which you are using does not give satisfaction, use another one. Each of these is to be used as follows:—The patient is in the sitting position.

Directions: With the head held as far back as possible, two or three drops of the solution are dropped into the nostril. In order to insure coverage of all the membranes of the nose, this position is held until the solution is felt in the throat. Then the head is placed between the knees with the chin on the chest for about ten seconds. Then the head is turned slowly to the right for five seconds and then to the left for five seconds. This may be repeated once every hour.

Where exposure to irritating dusts is unavoidable during the season, as it is to those who work in dusty trades, I recommend the use of a face mask which will keep out dusts and sprays. The one which we have found satisfactory is Willson Dustite Respirator. This is comparatively inexpensive; easily and perfectly adjusted to fit the face; and its filter discs are efficient and easily replaced.

For driving or walking about town, in pollen laden air, the mask is too unsightly. Where the injections have not been strong enough to effect complete tolerance to the exposures which must be encountered, the nasal filter, if properly fitted, has a place. It possesses, however, certain disadvantages in addition to its expense, which makes it useful only in selected cases.

17. **Directions for the Care of the Eyes:** The irritation and production of mucus in the eyes can be controlled by the proper washing and at the same time remove the offending material.

Directions: Wash the eyes with a saturated solution (4.8 grams of boric acid in 100 cc. of water) of cold boric acid by means of an eye cup. Immediately after the washing, instill into each eye two drops of a one per cent solution of sodium carbonate. Please note also that it is **Sodium Carbonate and not Sodium Bicarbonate.** These washings may be performed as often as it is necessary to give complete comfort, and the frequency will depend upon the exposures.

18. **Directions for the Control of an Acute Attack of Asthma:** (a) When the attack comes on, adults may take one ephedrine capsule. If at this time it is possible to burn the asthma powder, the attack can often be controlled by it. This is done in the following way:

One-half teaspoonful is placed in the center of an old pan or dish. The receptacle is placed two or three feet away from and on a level with the patient's nose, and ignite the powder. The smoke therefrom is supposed to waft across the patient's nostril. **Avoid a thick smudge.**

(b) Adrenalin (1-100 solution) by vaporization. This treatment occupies a positive half way between ephedrine tablets and injections of adrenalin. It has so many advantages that it should be kept on hand and used as soon as it is apparent that steps 1 and 2 are not effective. This can be accurately judged 30 minutes after the ephedrine capsule has been taken.

This requires a special vaporizer (DeVilbiss No. 40.) This should be used only under physician's direction.

Directions: Remove the cork and put in approximately 10 drops of adrenalin chloride 1-100, since this deteriorates rather rapidly and is expensive. When it is expected that it is to be used we dispense a tablet (Winthrop's) in a vial and one cubic centimeter of water in another vial. Directions for use are to put the tablet into the saline solution and shake until dissolved. Then remove the cork of the atomizer and pour in the 1-100 solution of suprarenin.

Now place the vaporizer into the open mouth and squeeze the bulb as the patient breathes in. Two or three vaporizations often save the patient the necessity of hypodermic injections. Care must be used not to inject this solution which is **ten times too strong for this purpose.**

19. It has been found that proper breathing exercises will often stop an attack of asthma, or if started just before the attack occurs will prevent its happening. These exercises, however, have to be learned when there is no trouble, so, they should be performed regularly. If possible in front of an open window in the morning, before breakfast, at night, before getting into bed, and at the first sign of an impending attack.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

THE slogan of this year's Early Diagnosis Campaign is "Help Find Early Tuberculosis." The sub-slogan "8 out of 10 who come to the sanatorium are advanced cases" is based on national statistics which show that only about 20 per cent of sanatorium admissions are classified as minimal cases. The classification is not an arbitrary one but conforms with standards agreed upon by eminent tuberculosis specialists. Every practitioner should be familiar with the terms "Minimal, moderately advanced and far advanced." They are defined in "Diagnostic Standards—Tuberculosis of the Lungs and Related Lymph Nodes" published by the National Tuberculosis Association. The most recent edition, 1938, brings the standards into line with current thought. The three stages of pulmonary tuberculosis are defined as follows:

EXTENT OF PULMONARY LESIONS

Minimal—Slight lesions without demonstrable excavation confined to a small part of one lung or both lungs. The total extent of the lesions, regardless of distribution, shall not exceed the equivalent of the volume of lung tissue which lies above the second chondrosternal junction and the spine of the fourth or body of the fifth thoracic vertebra on one side.

Moderately Advanced—One or both lungs may be involved, but the total extent of the lesions shall not exceed the following limits:

a. Slight disseminated lesions which may extend through not more than the volume of one lung, or the equivalent of this in both lungs.
b. Dense and confluent lesions which may extend through not more than the equivalent of one-third the volume of one lung.
c. Any gradation within the above limits.
d. Total diameter of cavities, if present, estimated not to exceed 4 cm.

Far Advanced—Lesions more extensive than Moderately Advanced.

SYMPTOMS

None—

Slight—Constitutional and functional symptoms, such as loss of weight, ease of fatigue, and anorexia are slight and not rapidly progressive. Temperature not more than one-half degree above normal at any time during the 24 hours. Slight or moderate tachycardia. Cough, if any, is not hard or continuous; sputum, if any, may amount to one ounce or less in 24 hours.

Moderate—Symptoms of only moderate severity; fever, if any, does not exceed two degrees. No marked impairment of function, either local or constitutional, such as marked weakness, dyspnea and tachycardia. Sputum usually does not exceed three or four ounces in 24 hours.

Severe—Marked impairment of function, local or constitutional. Usually there are profound constitutional symptoms, such as weakness and continuous or recurrent fever. Cough often is hard and distressing and the sputum may be copious.

STAGE OF DISEASE INFLUENCES PROGNOSIS

Stage of disease influences the length of time needed for recovery. In this study all patients were in the sanatorium for 90 days or more.

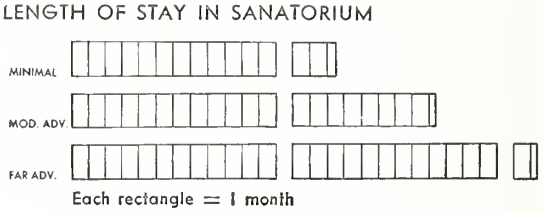


Chart I.

Living patients, not including those who were admitted more than once were classified according to the average length of stay in the sanatorium and the stage of the disease. Chart I pictures roughly the result.

The influence of stage of disease on the condition at the time of discharge was studied and the

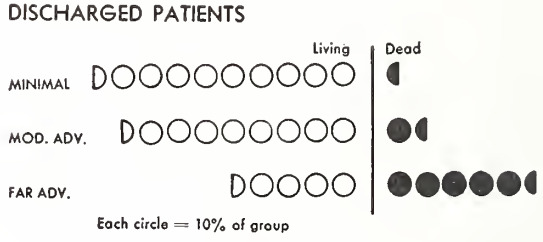


Chart II.

results confirmed the observation that the early case has a much better chance of satisfactory recovery than the advanced case. The result is summarized in Chart II.

If an American were condemned to confine his activity to his own affairs he would be robbed of one-half of his existence; he would feel an immense void in the life which he is accustomed to lead and his wretchedness would be unbearable. —De Tocqueville.

Single copies of Diagnostic Standards may be obtained free from your tuberculosis association or the National Tuberculosis Association.

Case Records Presenting Clinical Problems

The Clinical Course and Autopsy of a Young Man who came with a cough and a large amount of Yellow Sputum.

HARRY L. REINHART, M.D.

A white male, age 20, was admitted to the hospital complaining of a "cough productive of large amounts of yellow foul smelling sputum". This cough was most severe in winter, but present throughout the year, and he stated he has had it "all his life". He had pneumonia in early childhood. There was no history of hemoptysis, night sweats, or shortness of breath.

Physical examination reveals a white male about 20 years of age, sitting in a chair, coughing frequently, and expectorating large amounts of foul smelling sputum. The lips are slightly cyanotic. The right side of the chest appears more prominent than the left. Deep inspiration provokes paroxysms of coughing. There is an impairment of resonance on the right side and breath sounds are tubular over the right lower lobe. The extremities present a marked clubbing of the fingers, with incurving finger nails.

During a period of 45 days hospitalization he ran an irregular temperature, varying between 100° and 98°; pulse 80 and 100, respirations 20 and 25. He gained about five pounds weight, sputum production was reduced about 60 per cent and there was a diminution of subjective symptoms.

Readmission: He was readmitted to the hospital approximately two years later with practically the same complaints recorded above. He stated that about six months after he left this hospital, he had a sudden severe pain in the right chest, and marked shortness of breath, while driving a school bus. He was taken to a sanatorium. After a preliminary period of bed rest, a left pneumothorax was done with little improvement. Two months later he was given a right pneumothorax.

After a period of 16 days observation and preoperative preparation in this hospital a right lobectomy was performed. Following lobectomy his temperature varied between 98° and 103°, and his pulse from 100 to 160, and he lost some 20 pounds in weight. This is not an unusual convalescence following lobectomy. He was discharged after a period of 86 days hospitalization.

Readmission: Two months later he was readmitted with complaints of "paralysis of his left side, blurred vision, and slow speech". The onset was one week ago with a mild headache and a slight weakness of the left hand. He suddenly became unconscious and fell down. He was cyanotic, and there was twitching of the left hand and a tremor of the entire body. Two days later he had another attack of convulsions and loss of consciousness. He developed a left sided paresis, his headache increased in severity and projectile vomiting was present.

Physical Examination: The pupils are round, equal, and react poorly to light and accommodation. There is a 6 diopter choking of the right disc, and 2 diopter choking of the left disc. There is a slight left facial paresis, complete flaccid paralysis of left upper and lower extremities and the head is drawn to the left. He is oriented but drowsy, without muscle tremor or clonus. He died the day following his admission.

Anatomic Diagnosis: 1. Multiple metastatic abscesses of the brain (cerebellum and cerebrum). 2. Absence of lower lobe of right lung. 3. Massive right chronic adhesive pleuritis. 4. Moderate bronchiectasis middle lobe right lung. 5. Fistulous tract through scar tissue of skin to pleural cavity.

The abbreviated clinical history gives little indication of the repeated bronchoscopic examinations and treatment or the laboratory work which was conducted upon this patient. The diagnosis of bronchiectasis was manifest from the bronchoscopic examinations and by bronchography. Repeated cultures of aspirated material from the bronchi revealed a mixed type of infection. Vaccines were prepared from bacteria cultured from aspirated material and the patient was treated with these vaccines with little benefit. Treatment for chronic sinusitis was extended over a long period of time. The preliminary observations and treatment extended over a period of four months in this hospital, and a prolonged period in a tuberculosis sanatorium. The frequency of bronchiectasis and the prolonged period of morbidity with attendant economic drain present many problems which are a challenge to the medical profession, and any legitimate hope for their solution should be welcomed.

The course and fatal outcome of this case is fairly characteristic of bronchiectasis. The association of prolonged pulmonary suppuration and metastatic brain abscesses is well known. Insufficient evidence is available to implicate lobectomy as a factor in the production of such metastatic abscesses. However, such potentialities are inherent in the difficulties of the operation and the lowering of resistance by the long and stormy period of convalescence following lobectomy. With improvements in surgical technique, preoperative and postoperative management of these patients the outlook seems brighter for them. The operative procedure although relatively new appears fundamentally sound. It consists of the excision of a non-healing chronic suppurative infection which by virtue of its inherent character is not subject to surgical drainage.

Dr. R. G. Weaver:

Bronchiectasis is primarily a disease of young adults. It is characterized by a history of at-

This is the thirty-eighth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

tacks of paroxysmal coughing, productive of large amounts of foul smelling sputum. The history of productive cough and intermittent hemoptysis may be traced back to the first decade of life, or to antecedent respiratory infections or to a foreign body. Physical examination gives no pathognomonic findings. The production of copious amounts of foul-smelling sputum (as much as 700 cc. per 24 hours), and marked osteoarthropathy are suggestive, but by no means diagnostic.

In uncomplicated cases plain roentgenograms of the chest are rarely diagnostic. Bronchoscopy is one of the most valuable of diagnostic procedures especially for the elimination of foreign bodies and stenosis, and to definitely locate the source of the pus. It also permits one to obtain uncontaminated cultures, or to instil iodized oil.

Perhaps the most valuable means for diagnosis of bronchiectasis is bronchography. In addition to the diagnosis the exact type, location and extent of the pathology is clearly outlined. There are several methods of introducing the oil into the bronchi. One of the most frequently employed methods is the direct instillation of oil by means of the bronchoscope. Another technic frequently used is that of Singer, in which warm oil is dropped into the trachea from a laryngeal syringe. Bronchography in small children may present difficulties which can generally be overcome by making an intradermal wheal with novocaine over the cricoid cartilage, and injecting the oil into the trachea by piercing the cricoid membrane. X-ray visualization of the bronchial tree by the introduction of iodized oil is generally considered a safe procedure, but is best undertaken by those familiar with the technic and precautions.

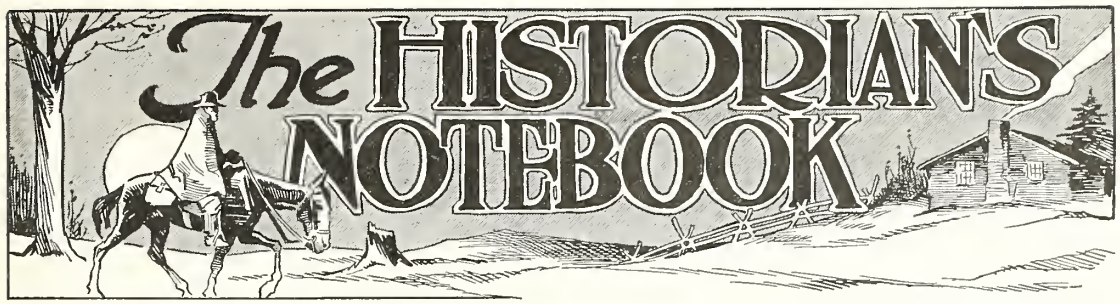
The treatment of bronchiectasis may be divided into nonoperative and operative. Nonoperative treatment may be employed alone, or in preparation for operation. Chronic sinusitis is present in a large percentage of the cases and treatment should be directed towards the alleviation of this condition first. Careful examination for foreign bodies in the bronchi or bronchial stenosis is necessary. Bed rest and a tuberculous regimen will cause a definite decrease in the cough and sputum production. There are a small number of cases in which the causative factor may be removed and definite improvement or a cure may be obtained. In the main, however, the medical or nonoperative treatment is not very satisfactory, but should be tried first, and in most cases employed as an integral part of the preoperative management.

The three most important procedures of the non-operative treatment are postural drainage, lipiodolization of the infected area, and bronchial aspiration. Postural drainage, when carried out routinely and rationally may keep bronchi relatively empty. The main principle is to keep the trachea and pharynx completely dependent providing an uninterrupted flow of the exudate from the infected bronchi. This should be done for thirty minutes each morning and night. Norlock suggests the raising of the foot of the bed at least 20 inches, with the patient sleeping on the uninfected side. Jackson compares the diseased area to a "septic tank" blocked off by thick, tenacious sputum which adheres tightly to the bronchial wall. By the action of saprophytic organisms, necrotic material is thinned out and may be coughed up and expectorated. Repeated bronchoscopic aspirations may remove this thick, tenacious mucous and provide more adequate drainage. Usually in conjunction with bronchoscopic aspiration, iodized oil is introduced either through the bronchoscope or by passive intratracheal methods.

Removal of the infected lung area is the only procedure which may bring about a cure. Furthermore, when the disease is not recognized until late, as is frequently the case, and a portion of the lung is one large cesspool, making the patient so offensive to himself and society that he is isolated, surgery offers the only hope of relief. Lobectomy is the type of operation usually performed, and the technic varies from the one and two-stage operations done chiefly in this country to the multiple stage operations seen mostly in Central Europe. The indications for lobectomy are preferably those of unilateral bronchiectasis in which there is a persistent or progressive disease, which does not yield to nonoperative treatment. With careful and proper medical preoperative management the mortality of lobectomy in skillful hands is not great. Churchill reports a mortality of 6.1 per cent in 49 cases in 1937, and with the recent improvements in management and technic he reported the last 30 consecutive cases without a death.

Bilateral bronchiectasis is definitely more hazardous because of the potentiality of spread of infection from the unoperated side to the area of operation. However, surgery may provide a patient with bilateral bronchiectasis the only hope of relief. In such cases the side with the greater amount of involvement is removed first and then after a rest period the involved lobe of the other side is removed; in some cases removal of the one lobe may be sufficient to place the disease under nonoperative control. Complete removal of bilateral disease is a relatively recent procedure, but each day brings more reports of successfully treated cases.

The desire for intellectual certitude is laudable in the young, as a stimulus to thought and to learning; in the adult it easily becomes a vice.—J. B. S. Haldane.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

The Cincinnati General Hospital

DUDLEY W. PALMER, M.D.

IMPORTANT institutions like families usually trace their histories back to times of simple or obscure origins. Often one's interest in them lies in the development from these simple or unknown beginnings to a place of importance, through the stress of circumstance, through good and bad times and through the effect of strong personalities. So in the case of the Cincinnati General Hospital. While the name may have changed and its effectiveness may have varied, its purpose has remained the same since the founding in 1815 of the first charity hospital in this region.

The plan to have accommodations for the poor sick people of Cincinnati began when the township trustees rented a house at what is now Vine and Sixth Streets in 1815. That year Dr. Daniel Drake, in his "Picture of Cincinnati" called the town the "metropolis of the Miami Country," and in 1824 the merchants called it the "Tyre of the West." This was 27 years after the founding of Cincinnati. On January 22, 1821, following the efforts of Dr. Drake the Commercial Hospital was chartered by the legislature. The chartering of such a hospital was recommended by Governor Ethan Allen Brown and this was the subject of violent discussions in the spring election of 1821. The act established "in the Township of Cincinnati, in the County of Hamilton, a public infirmary, to be called and known by the name The Commercial Hospital and Lunatic Asylum of Ohio." This was a combination of hospital, insane asylum, infirmary, poor house and orphanage; not until 1860 was the separation of this complicated combination achieved so that the Commercial Hospital became what its name implied, a hospital. At one time in 1829 it housed 55 paupers, 13 lunatics. The records show that in 1828 it had admitted 268 persons of whom 35 died and were buried at the expense of the hospital.

In a short time after the charter was granted a suitable site for the hospital was obtained consisting of four acres on "out lot No. 59" bounded on the south by Clark Street, on the west by Central Avenue, on the east by the Miami Canal. This was about one mile from the Ohio River. It cost the township about four thousand dollars. This lot is now used as a large parking lot for automobiles, a playground and a market. In 1823 a three story (53′ by 42′) brick building with an eight foot basement facing south was erected. This had a lecture room for nearly one hundred students. The cost was ten thousand dollars in depreciated bank paper money estimated to be worth, at that time, about three and a half thousand dollars. The enclosures and furniture cost about seven and a half thousand dollars. Four years later another building (44′ by 28′) was erected for lunatics and in its basement was the apothecary shop, the internes lodging room and the heating room. The first floor was used for male and the second floor for female patients. Along the canal one acre was made into a vegetable garden, where the females were "permitted to resort for airing and recreation." The whole lot was enclosed in a board fence and the western two acres were covered with grass where the men were permitted to walk. About one thousand patients a year received treatment for about 12 years, but only about one-fourth were house patients as the building only had room for about 150 beds. In 1832 it was filled at all times as that was the year of the great cholera epidemic. The following advertisement found in the Cincinnati Directory Advertiser for 1834 is interesting today. "Commercial Hospital and Lunatic Asylum of Ohio: Edifices on Twelfth Street, b. Plumb and Western Row. Supported by a portion of the auction duties of this county and a township tax. Annual expenses about $10,000. Under the direction of the Township Trustees. Dr. Streader, Resident Physician."

The staff of the Commercial Hospital consisted only of the doctors of the Medical College of

Ohio as the original act, Section VIII, stated, "That it shall be the duty of the faculty of the Medical College of Ohio to give to all the patients the medical care and surgical advice and services which their cases may require, without charge, in consideration of which they shall be at liberty, under such regulations as they may choose to prescribe, to introduce the pupils of said college into the said hospital and asylum to witness the treatment of patients there assembled." It is interesting, today, to realize that a vote of only seven hundred against five hundred by the people brought approval of this project; this was obtained, very largely, due to the effort of William Henry Harrison of the General Assembly of Ohio, who later became president of the United States of America. The doctors were always on duty, one for the medical and one for the surgical patients. Marmaduke Burr Wright was one of the outstanding men on duty at that time. He early successfully ligated the internal iliac artery and in 1854 read a paper before the Ohio State Medical Society on "Difficult Labors and Their Treatment", for which he was awarded a gold medal. Most of his work was done at the Commercial Hospital.

The first interne, Edward H. Bradburg, was appointed on February 17, 1827, he being chosen following a competitive examination of the student graduates. In a few years the internes were paid $400.00 a year. During those years the interne had charge of the patients in the "pest" house which was first located where the Music Hall now stands and later at what is now called Lincoln Park, though then known as Potters Field. All contagious cases were taken to the Pest House. Later it was removed to Rohs Hill, now an area southwest of McMillan Street and Clifton Avenue, and to Lick Run in 1878.

Not until 1839 did the Ohio Legislature pass a law permitting any medical college to have the advantages of the hospital for the training of their students. Some years later the result was almost daily bloody fights between the students of the Ohio and Eclectic Colleges. Finally this necessitated the abandonment of the clinical lectures for about one year. Peace among the students was temporarily restored by the hospital trustees selling hospital admission tickets to the students for five dollars, which tickets were taken away from the student who caused the trouble.

A city infirmary was established in 1852 for the poor and aged sick at Hartwell, Hamilton County, and in 1853 an insane asylum was started which relieved the load on the old hospital and its staff. The name of the hospital was not changed again until March 1, 1861, when it was called the "Commercial Hospital of Cincinnati" having a board of seven trustees to govern it and be responsible for the conduct of the institution. To show the young doctors of today what progress has been made in surgery one has but to quote from an article by D. H. Van Nuys on "A Few Medical Observations." "The appendix vermiformis was well known anatomically, but during the period of which I write it quietly reposed within its hermitage, and 'not a slumbering sound awoke nor sighed' to attract the attention of our great teachers. Its reputation for peace and quietude in the community of physicians was good."

After 47 years of steady hard use with very little overhauling or repair the hospital building was not only old but badly overcrowded. In 1865 a temporary annex was obtained on Elm Street for the female patients. The Civil War delayed the building of the very necessary new hospital thus forcing the board to make many improvements in the old building. Of these, gas lighting was one of those most needed. At this time Cincinnati was reported to have a population of about two hundred thousand people. The same year (1865) the city council, the hospital trustees, the medical profession and the city's more influential citizens applied to the legislature for the creation of a municipal debt to build a new hospital approved by the people of Cincinnati. The vote for this was obtained in 1866 without a dissenting voice. How different this was when the question of moving Cincinnati's charity hospital to the best suburb of the city; friendships were broken and the feelings of many against the move were very vehemently expressed during the several years it was under discussion.

The construction of the long urgently needed new general hospital was soon begun and finished in January, 1869, at a cost of about one million dollars. It was named the Cincinnati Hospital and was modeled after St. George's of England. Those who knew said it was one of the greatest architectural attractions in this part of the United States, to the glory of Cincinnati's citizens. It consisted of eight buildings, connected by corridors, with freestone trimming at the angles and finished in the French style with Mansard roofs. Each building was three stories high with a basement passageway and large storage rooms. The hospital capacity was about 500 beds. The first operation performed there was by Thomas Wood, for a hip joint amputation. In the one operating room, or amphitheatre, Dr. N. P. Dandridge performed the first successful operation for an ovarian tumor in the Cincinnati Hospital: he used the "new antiseptic methods". The obstetrical waiting-ward was used for the patient. The internes were Drs. Frank Caldwell and B. K. Rachford. During the active days of the Cincinnati Hospital, frequently two and even three operations were going on at the same time. This was done because of lack of several operating rooms but occasionally, one fears, the sur-

geons of one school tried to attract the students' attention from the work of a surgeon from another school.

As time marched on the need of a new general hospital became more and more urgent for each year saw more patients applying for admission until in 1901 over 7,500 were admitted. Pope in his "Essay on a Man", said "Worth Makes the Man". This is shown by some of the doctors who in 1901 were on the Board of Trustees of the Cincinnati Hospital, as for example, Drs. P. S. Conner, A. B. Isham, C. R. Holmes, and on the staff, C. G. Comegys, W. W. Dawson, W. H. Mussey, S. M. Allen, F. Forcheimer, P. S. Conner, N. P. Dandridge, E. W. Walker, C. D. Palmer, J. Eichberg, J. M. Withrow, G. A. Fackler, O. P. Holt, William H. Taylor and many others. In October, 1901, the board appointed a special committee of Dr. Isham, Captain Parker and Mr. Amor Smith, to investigate the advisability of remodeling the old buildings. It was found the cost would be about four hundred thousand dollars without providing for any extra space. Not until April, 1902, did the legislature pass a bill authorizing the issue of hospital improvement bonds. The building committee consisted of Drs. C. R. Holmes, A. B. Isham, and Mr. Julius Fleischman. Dr. Holmes, the chairman, devoted a great deal of two years to the study of hospital costruction and its advisable location, by traveling in Europe and the United States. Evidently he was greatly impressed by the pavilion plan, as used in Europe, for he carried through that idea to the local architects. This was a plan that in the United States was being passed on as "old time" because of the modern development of tall buildings with steel supports, modern heating equipment, plumbing, air conditioning, elevators, antiseptic and aseptic methods.

There were many discussions and disagreements expressed by prominent doctors of the plans of Dr. Holmes. These were based on the feeling Avondale "is too far from the poor people's homes, the factories and the railroads". In the Lancet Clinic of February, 1907, is found this statement by one of the oldest practicing physicians of Cincinnati and one of the best fitted to speak, Dr. T. C. Minor, "To our mind the locality chosen for contagious branches of such a municipal institution was ill-advised, and a sanitary mistake of a most serious character." There was dislike of the European methods, above mentioned, firmly expressed; the difficulty and danger of carrying the patients the long distances back and forth to the operating pavilion; the risk of transferring sick patients from building to building for examination such as X-ray, which was just then beginning to become the important factor in diagnosis it now has attained; the delay in locating the internes on emergency calls as well as the length of time needed by the interne to reach the case when every minute counted; the difficulty for the staff doctors to reach and come in contact with the interne who so many, many times needed the advice of the older men in the care of the sick patients. Dr. W. H. Dewit said, to quote from a statement in the local medical paper on March 2, 1907, "A very grave mistake was made in its (the Avondale) location". In spite of this opposition to location, cost and style of buildings, Dr. Holmes being the motive power in the movement for a bigger and better hospital gained his way: in the campaign he had a local doctor working for him in every precinct with a captain in every ward.

The great Dr. A. J. Ochsner, of Chicago, said many years ago the cheapest hospital to build and to operate is one about eight stories high. The cost of the present Cincinnati General Hospital is said to have been about $5000.00 a bed, the Good Samaritan Hospital of Cincinnati, which is a tall building, $2200.00 a bed. The latter was started early in 1907.

Finally in 1903 and 1904 twenty-seven acres on Burnet Avenue in Avondale were purchased with a large retaining wall at a cost of $318,890.00. City Solicitor C. J. Hunt made the necessary legal steps. Not until November, 1905, did the board of public service accept the plan; various causes delayed further progress until February, 1908, when Dr. Holmes was appointed advisory commissioner and H. E. Hannaford, the architect. A special election in May, 1909, authorized the expenditure of two and a half million dollars and in January, 1910, Mayor Schwab appointed to the hospital the commission which consisted of H. L. Laws, J. A. Green, Drs. J. M. Withrow and C. R. Holmes with the mayor as an ex-officio member and because of his position, president; Dr. Holmes was made permanent president pro-tem. The discussions of this group were so heated that they were frequently carried on behind "closed doors" to keep reporters out. The problems coming up were as to the type of buildings to be built and whether to build them down town or in Avondale. Dr. Withrow favored placing the new building down town and making it ten to twelve stories high, according to modern American construction. Dr. Holmes advocated the building of a hospital of the Berlin pavilion two or three-story type on twenty-one acres. Dr. Withrow was joined by Dr. George A. Fackler, Dr. P. S. Conner and Dr. William Taylor in opposing Dr. Holmes in the rebuilding of our present General Hospital. Dr. Withrow pointed out the increased land cost; the great cost of digging many cellars, cellar walls and roofs, as well as the cost of heating. Dr. Withrow's advice was not followed and after some five years of service on the commission he

resigned. Today the hospitals of most municipalities are built in conformity with his forward-looking ideals.

The six buildings most needed for the contagious disease group with the temporary power and laundry buildings were built at a cost of $369,131. These were opened for public inspection in March, 1911, and early in April they were turned over to the Director of Public Safety ready for use. In May, 1911, the board entered into a contract for the completion of the entire group of eighteen buildings. It became necessary in November, 1913, at a general election, to obtain an additional bond issue of one-half million dollars to complete and equip the hospital, so the total cost of land and buildings was about four million dollars between January, 1905, and April, 1914. The cost to the board and many other citizens who gave freely of their time, energy, money and wisdom will never be known. The same is true of the many fine doctors who have been on the staff of Cincinnati's General Hospital. "God Bless them." The completed buildings contained 850 beds and 60 bassinets. In a few years this hospital, owned by the city, was put under the control of the City Manager and the Board of Directors of the University of Cincinnati. It was approved for standardization by the American College of Surgeons, for general interneship and resident interneship in a specialty, by the American Medical Association.

The surgical amphitheatre was used in February, 1915, for the ceremony of the formal surrender of the buildings to the city authorities. Later in the day a congratulatory dinner was given the commissioners at the Sinton Hotel. At least eighty thousand Cincinnatians made a tour of inspection of the new buildings on February 21-22, 1915. The transfer of over 300 patients from the old downtown hospital to the large new hospital about four miles from the poor section of Cincinnati was completed without mishap. The new hospital was a complete general hospital with accommodations for the needy poor of the city. Its only accommodations for private patients were in the contagious departments as the private hospitals of Cincinnati had no provisions for their care. The Holmes Hospital was built in 1929 so that the staff of the Cincinnati General Hospital might have a private hospital near to the place of their teaching activities. This in spite of the fact that the fine Jewish Hospital was just across the street from the Cincinnati General Hospital. A wrecking company bought the old downtown buildings for $21,000 and soon they were gone except in the minds of the patients whose lives and health had been saved therein, the staff who had contributed much effort and long hours to the city's poor, and to the many internes who had learned the proper way to handle, encourage and treat those needing their medical care.

The Tuberculosis Sanitarium was soon completed as was the New Medical College Building. The last formal meeting of the Board of Hospital Commissioners was held on October 27, 1916. A few business affairs were carried on during the next few years even though the board membership was weakened in 1917 by Dr. Holmes' departure for active service in the World War and the deaths in January, 1920, of Dr. Holmes and Louis Levi.

The instruction of young women in the school of nursing has become well-known over the entire country. A graduate may obtain a position at most any hospital or school. The only flaw in their training might be said to be that some of them, when they become private nurses, are a little lacking in courtesy and "playing up" to the well-to-do private patient. The school of nursing in 1916 was made a part of the College of Medicine of the University of Cincinnati, and the students must matriculate in the University. Later there was instituted an optional course of five years leading to the Bachelor of Science degree and a diploma in nursing.

A school room for the instruction of the convalescent children was established in 1916 by the Cincinnati Board of Education. Later this school became also one for crippled children and an autobus was furnished to take the children back and forth to their homes. The number of teachers needed has increased from year to year.

The Dispensary of the Medical College was conducted downtown until the summer of 1917 when a generous citizen on the Board of Hospital Commissioners gave twenty-five thousand dollars to equip the basement rooms of two of the hospital buildings for the ailing poor legal residents who do not need hospitalization.

The Medical Library of the hospital was founded by Dr. J. H. Tate soon after the Civil War. It was placed on the top floor of the office and staff entrance building of the downtown hospital with P. Alfred Marchand as the clerk in charge, a man who had admirable qualities for his position; he was connected with the Cincinnati Hospital for over 37 years. Dr. P. S. Conner was the official librarian for many years. This library was not only difficult of access, but dark, dingy and ill-ventilated. It is now on the first floor of the office building and one always sees students, doctors, and professors looking up references. To the staff only is it a circulating library for a restricted period. On January 17, 1939, it contained 46,299 volumes, not counting the many duplicates, and many thousands of pamphlets.

Proceedings of The Council

Special Legislative Problems Considered at Called Meeting on March 12, Held Jointly with Public Relations and Legislative Committees

A CALLED meeting of The Council of the Ohio State Medical Association was held on Sunday, March 12, 1939, State Headquarters Office in Columbus, for the special purpose of discussing and taking action on certain legislative questions. Those present were: President Hein, Past-President Alcorn, Treasurer Beer, Councilors Hogue, McCormick, McNamee, Skipp, Brush, Seiler and Sherburne; Dr. Lowe and Dr. Platter, members of the Committee on Public Relations and Economics; and the following members of the Sub-Committee on Legislation: Dr. Swepston, Dr. Harris, Dr. Shoemaker, Dr. Dutrow, Dr. Slosser, Dr. Schoolnic, Dr. Smith, Dr. Linn, Dr. Walker and Dr. Calhoon. In addition, the meeting was attended by Dr. J. H. J. Upham; Dr. Forman, Editor of *The Journal*; Dr. R. M. Hosler, substituting for Dr. Watkins, a member of the Sub-Committee on Legislation; Executive Secretary Nelson and Assistant Executive Secretary Saville.

On **motion** by Dr. Sherburne, seconded by Dr. McNamee and **carried**, the minutes of the regular meeting of The Council, held on January 29, 1939, (March, 1939, issue of *The Journal*) were approved as published.

It was announced that the membership as of March 11, 1938, was 5,603 compared to 5,446 on the same date a year ago and to 6,128 as of December 31, 1938.

ACTION ON SPECIFIC BILLS

Detailed reports on the session of the 93rd Ohio General Assembly to date and on various recent developments with respect to legislation, in which the State Association is vitally interested, were made by Executive Secretary Nelson, Assistant Executive Secretary Saville and Dr. Platter.

On **motion** by Dr. McCormick, seconded by Dr. Skipp and **carried**, The Council approved suggested changes in Senate Bill 97, which has passed the Senate and is now pending before the House Health Committee. It was the opinion of The Council that the adoption of the suggested amendments would enhance the passage of the proposal which sets up very important provisions to assist the State Medical Board in conducting examinations and carrying on reciprocity with other states.

Objections to certan portions of Substitute Senate Bill 104, the group medical service plan enabling act, sponsored by the State Association, were voiced by several members of The Council. On **motion** by Dr. McNamee, seconded by Dr. Seiler and **carried**, The Council instructed the Executive Secretary to endeavor to have the State Senate, before which this proposal is pending, delay action for a few days so that amendments in line with the sentiments expressed by members of The Council could be prepared and introduced. Present policies on and activities with respect to numerous other bills were reaffirmed and approved.

WAGNER BILL OPPOSED

A bill, S. 1620, pending in the United States Congress, known as the Wagner National Health and Medical Program Proposal, was carefully analyzed by The Council. Information regarding this proposal from the American Medical Association was considered. On **motion** by Dr. Sherburne, seconded by Dr. Hogue and **carried**, The Council went on record as being opposed to the passage of the Wagner bill in its present form, and instructed the Executive Secretary to prepare a statement of policy in opposition to the bill, to be submitted to members of The Council by mail for approval before dissemination to the various county medical societies. Also, the Executive Secretary was instructed to prepare a memorandum suggesting proper follow-up procedure. (See page 413 for statement of policy.)

A brief report on Annual Meeting plans was made by Dr. Sherburne, and reports on activities in their various districts were submitted by members of The Council.

The Council adjourned to meet at the call of the President, probably on Tuesday evening, May 2, the night preceding the opening of the 1939 Annual Meeting at Toledo.

Attest: CHARLES S. NELSON,
Executive Secretary.

Refuses To Broaden Coverage

The House Ways and Means Committee of the Congress recently voted unanimously to defer action on the inclusion of farm labor, domestic help and employes of religious, charitable and non-profit institutions, within the provisions of the old-age annuity system of the Social Security Act. In rejecting this recommendation of the Social Security Board, the committee indicated that the proposal involved problems which could not be solved before the end of the present session of the Congress.

Why Group Medical Service Plans Enabling Act, S. B. 104, Now Pending Before Ohio Senate, Should Be Enacted

AS pointed out in previous issues of *The Journal*, several county medical societies and academies in Ohio, notably Toledo, Cleveland and Cincinnati, are planning to establish local group medical service plans **whereby low-wage earners may receive medical care at stipulated monthly payments**, if the present Ohio General Assembly will enact Substitute Senate Bill 104, an enabling act, giving the medical profession the legal right to start such programs.

Substitute Senate Bill 104 was introduced at the request and on authorization of The Council of the Ohio State Medical Association. The purpose of the bill is to establish a legal method whereby the medical profession, **when and if the physicians of any county desire to do so and there is a definite need**, may start group medical service plans. **The bill is not a state medicine proposal.** Its enactment would permit the medical profession to start plans which in effect would be **voluntary health insurance**, under the control and supervision of the medical profession. **These would be a barrier to state medicine or government-controlled medical service.**

Unexpected opposition has arisen to the enactment of Substitute Senate Bill 104—even some physicians who apparently do not clearly understand its purpose and provisions have expressed disapproval or have expressed no enthusiasm for the bill. Some members of the Legislature are confused because of this attitude on the part of some physicians and because of the strenuous opposition expressed by certain groups outside the medical profession. For these reasons, enactment of the proposal at this time is problematical. If it is not enacted, the societies which have plans ready to initiate will be handicapped and inauguration of such plans will be delayed.

In a recent bulletin to local committeemen and officers, the Committee on Public Relations and Sub-Committee on Legislation enumerated the following reasons why Substitute Senate Bill 104 should be enacted and these reasons are passed on to the entire membership for consideration:

1. Many **low-wage earners** in Ohio want voluntary group medical care, financed through installment payments and supervised by the medical profession—**not the Federal or State Government.**

2. Some of the medical societies and academies in Ohio want to establish such plans **for low-wage earners** (those who are finding it difficult now to finance medical care for themselves and their families) and will do so, **if the Legislature will legalize such plans.**

3. Substitute Senate Bill 104 does **not** set up any plan. **It simply is a legal enabling act**, permitting the formation of non-profit corporations by members of the medical profession **where needed and desired by the profession**, to operate a **local** group medical service plan, with reasonable financial supervision for the protection of the public by the Superintendent of Insurance. Any such service plan would be drafted and operated by the medical profession, with maintenance of the physician-patient relationship and free choice of doctor from the list of participating doctors of medicine. **No plan could be established without the approval of at least a majority of the physicians in the county.**

4. Substitute Senate Bill 104 will make possible the formation of medical service plans on a non-profit basis, with all benefits going to subscribers in the form of competent medical services, and will bring about a wider distribution of medical care without governmental regulation and political interference.

5. This bill has the approval of the Superintendent of Insurance and representatives of the insurance interests.

6. The medical profession, which has been accused of a "do-nothing attitude," is willing and anxious in several urban centers to establish plans which will be beneficial to **the low-wage earner**, but cannot undertake this constructive program **unless the Legislature will give it the legal right to go ahead.**

7. Substitute Senate Bill 104 will make it possible for the medical profession to do something which many people in Ohio want and will be a safeguard against Federal and state medicine.

If the medical profession and its friends (those who are sincerely interested in helping the low-wage earner to find a way to finance medical care) will get behind this bill, it will be enacted. Unless more interest is shown than has been displayed so far, the outcome will be extremely doubtful.

Survey Taken Over By Government

Headquarters of the Mental Hospital Survey Committee will be transferred from New York to the United States Public Health Service in Washington next July in order to coordinate its activities with those of the Government's Mental Hygiene Division, Assistant Surgeon General Lawrence Kolb announced recently. This committee was formed in 1936 to survey public mental hospitals in this country and Canada, to promote research, and to encourage wider distribution of teaching facilities in psychiatry and neurology. The work has been carried on through funds provided jointly by the Rockefeller Foundation, the American Psychiatric Association, and the U. S. Public Health Service.

Wagner Bill First Step Toward Federal Medical and Health Program on Huge Scale; Objections Are Enumerated

FIRST steps to bring about fulfilment of the so-called National Health Program, recommended by the Technical Committee on Medical Care of the Roosevelt Interdepartmental Committee to Coordinate Health and Welfare Activities of the Federal Government, (discussed on numerous occasions in *The Journal*) were taken on February 28 when Senator Wagner, New York, introduced into the United States Senate a proposal which, if enacted, would be known as the "National Health Act".

The bill, S. 1620, has been referred to the Senate Committee on Education and Labor for hearings. Senators Vic Donahey and Robert A. Taft, Ohio, are members of that committee.

Ohio physicians who may wish to communicate with Senators Donahey and Taft regarding the Wagner Bill will find the following statement of policy in opposition to the proposal, adopted by The Council of the Ohio State Medical Association on March 12, 1939, helpful. The Council's action followed a careful analysis of the bill and study of a digest of the proposal prepared by the Bureau of Legal Medicine and Legislation of the American Medical Association:

STATEMENT OF POLICY IN OPPOSITION TO THE WAGNER BILL, S. 1620, ADOPTED BY THE COUNCIL, OHIO STATE MEDICAL ASSOCIATION

AT a special meeting of The Council of the Ohio State Medical Association, held in Columbus on March 12, 1939, a careful analysis was made of a bill, S. 1620, introduced into the Senate of the United States by Senator Robert F. Wagner of New York, on February 28, entitled a bill "To provide for the general welfare by enabling the several States to make more adequate provision for public health, prevention and control of disease, maternal and child health services, construction and maintenance of needed hospitals and health centers, care of the sick, disability insurance, and training of personnel; to amend the Social Security Act; and for other purposes".

SCOPE OF BILL

The Wagner Bill proposes to amend and supplement provisions of the Social Security Act by providing for considerable expansion of various services now provided under the Social Security Act and for the establishment of additional extensive health and medical activities under the supervision and control of the Federal Government. The subjects and activities covered by the Wagner Bill are:

1. Maternal and child health services.
2. Services for crippled children.
3. Administration of grants to states for maternal and child welfare.
4. Public health work.
5. Grants to states for hospitals and health centers.
6. Grants to states for medical care.
7. Grants to states for temporary disability compensation.
8. Rules for the determination of the financial status of states.

The above activities are in line with the recommendations of the Interdepartmental Committee to Coordinate Health and Welfare Activities, appointed by the President in August, 1935, which were considered at the National Health Conference last June, and submitted to the Congress

DETAILED ANALYSIS BY A.M.A.

Members interested in studying a detailed, section-by-section analysis of the Wagner "National Health Act" should review an analysis of the bill, prepared by the Bureau of Legal Medicine and Legislation of the American Medical Association and published on pages 999-1001 of the March 11, 1939, issue of The Journal of the American Medical Association.

Also, they will be interested in reading the editorial comment in that same issue, page 997.

in a special message by President Roosevelt on January 23.

PRESENT POLICY OF O.S.M.A. AND A.M.A.

In the Fall of 1938 the House of Delegates of the American Medical Association, in considering the recommendations of the Interdepartmental Committee, approved expansion of public health service **where need could be shown**; approved medical care to the indigent and to the medically indigent **where need could be shown**; and ap-approved expansion of hospital construction, **provided the need could be demonstrated**, recommending, however, utilization of existing facilities to the utmost before a new building program is started.

The Council of the Ohio State Medical Association is on record as having endorsed the policy adopted by the House of Delegates of the American Medical Association. The Ohio State Medical Association's long-standing policy is that one of the fundamental functions of government is the protection of public health through prevention and control of disease and public health education with adequate provision for providing medical care at public expense for those who are unable to provide such services for themselves. At the same time, the Ohio State Medical Association always has maintained that the activities of government in this field **should be kept at a minimum and established on the basis of proven needs**, with administration in the hands of local authorities, wherever possible, in cooperation with local public health officials and local physicians.

Moreover, the Ohio State Medical Association is on record as believing that the financial responsibility for carrying on such programs should rest, in the first instance, **with local communities** and that supplemental assistance from state and Federal governments **should not be provided unless it has been clearly demonstrated that local political subdivisions find it impossible to carry on activities which are necessary to safeguard the health and meet the medical needs of the people of such local communities.**

OBJECTIONS TO THE BILL

In the opinion of The Council, numerous provisions of the Wagner Bill violate the standing policy of the Ohio State Medical Association, as well as the recommendations adopted by the House of Delegates of the American Medical Association; violate sound economic and governmental principles, and would retard, rather than enhance, efficient public health work.

(1) The Wagner Bill would establish even greater concentration of power and authority over public health and medical activities in Washington than at present, and would virtually result in complete domination of these activities by the Federal Government.

(2) It authorizes the expenditure of enormous sums by the Federal Government before the need for such expenditures has been proved and at a time when the financial condition of the country calls for economy in government rather than extravagance and expenditures for unnecessary activities.

(3) It provides for the dispensing of public funds by the Federal Government to the various states on a matching basis. This policy is nothing more nor less than polite coercion and gives the Federal Government practically complete control over the activities being financed in this manner. At the present time, practically every state in the union is confronted with serious financial problems and is finding it difficult to obtain adequate funds for financing necessary governmental functions. Ohio is no exception. No state at this time should be coerced into undertaking activities which are not absolutely essential.

(4) The Wagner Bill is so vague, with respect to the powers and duties of the various agencies given administrative control and as to how the large sums of money appropriated would be used, that little or no control is placed over administrative agencies and such money undoubtedly could be used by them for almost every conceivable kind of activity in the fields of public health and medical care.

(5) Although the Wagner Bill does not establish a system of compulsory health insurance nor any specific plan of medical care for the public generally, it does encourage the establishment of government-controlled programs of providing medical care on a state-wide basis by providing for the allocation of Federal funds to the various states where state plans are already or may be formulated with the approval of the Social Security Board.

(6) The Wagner Bill is nothing more nor less than an initial step toward a gigantic system of federalized medicine, covering practically every part of the fields of public health activities and medical care. Proponents of this proposed legislation point to the fact that the total expenditures, authorized for the first year should the act become effective, would amount to only approximately $98,000,000, but they neglect to emphasize that such expenditures would increase many fold during the next two or three years and that, during subsequent years, there would be practically no limitation on the costs of the various activities covered by the bill. Based on figures supplied by proponents of the bill, it has been estimated that the annual cost to the Federal Government of financing this extensive program within a few years would amount to between $850,000,000 and $1,000,000,000. Should that part of the proposal relating to general

APPROPRIATIONS PROPOSED TO BE AUTHORIZED BY WAGNER NATIONAL HEALTH BILL

Purpose	Fiscal Year 1940	Fiscal Year 1941	Fiscal Year 1942	Subsequent Fiscal Years
Title V, Part 1				
Maternal and child health services	$ 8,000,000	$20,000,000	$35,000,000	No limit
Title V, Part 2				
Medical services for children, for crippled children and for other physically handicapped children	13,000,000	25,000,000	35,000,000	No limit
Title V, Part 5				
Administration	2,500,000	No limit	No limit	No limit
Title VI, Part 1—Public Health Work				
§601—Payments to states	15,000,000	25,000,000	60,000,000	No limit
§608a—Administration	1,500,000	No limit	No limit	No limit
Title VI, Part 2				
Investigations by Public Health Service	3,000,000	3,500,000	4,000,000	No limit
Title XII				
Grants for general hospitals	8,000,000	50,000,000	100,000,000	No limit
Grants for mental and tuberculosis hospitals	No limit	No limit	No limit	No limit
Administration	1,000,000	No limit	No limit	No limit
Title XIII				
Grants for medical care	35,000,000	No limit	No limit	No limit
Administration	1,000,000	No limit	No limit	No limit
Title XIV				
Grants for temporary disability compensation	10,000,000	No limit	No limit	No limit
Administration	250,000	No limit	No limit	No limit

—The Journal, A.M.A.

medical care be expanded, as proponents advocate, to include a large portion of the population, it is conceivable that the annual cost of this part of the program alone would approximate three to four billions of dollars annually.

CONCLUSIONS

It is the sense of The Council of the Ohio State Medical Association that the Wagner Bill goes **far beyond the demonstrated needs in the fields of public health and medical care.** The Council believes that the State of Ohio is able to provide adequate public health protection and medical services for the people of Ohio without extensive financial assistance on the part of the Federal Government. Centralization of control in and dictation by the Federal Government over services for the benefit of the needy sick and handicapped of Ohio would not only be undesirable but detrimental to the best interests of beneficiaries. The expenditure of vast sums of money, such as those proposed by the Wagner Bill, in Ohio would be unsound economically, and entirely unnecessary. **The medical profession of Ohio now, as in the past, stands ready to cooperate wholeheartedly with the administrative and legislative branches of this state, as well as local political subdivisions, in working out sound and adequate provisions for improving public health services and in initiating programs which will bring about a wider distribution of good medical care.**

It believes that the needs of the sick and handicapped in Ohio can be met **through cooperative, voluntary programs and reasonable assistance on the part of local governmental units** through the use of public funds, and that such activities in Ohio can be carried on in a more competent and economic manner through state and local initiative than through any methods which would be under the supervision and control of agencies of the Federal Government. We believe that a federalized public health program and system of medical care is unnecessary and objectionable. Activities in this field should be left to the individual states, which are best able to determine needs and methods.

Enactment of the Wagner Bill, obviously, would please those individuals and groups who are seeking to bring about complete socialization in this country. Agitators who are doing their best to bring about extensive paternalism, socialism, and eventual Federal control of everything would interpret passage of the Wagner Bill as endorsement of their un-American and subversive policies and activities.

It is the sincere hope of The Council of the Ohio State Medical Association, speaking offi-

cially for the medical profession of Ohio, that the members of the Congress from Ohio will not support the Wagner Bill because:

(1) It is economically unsound and would add an enormous amount to the already strained financial structure of the Federal Government;

(2) Because of its vagueness and indefiniteness, it would provide almost blanket authority to Federal agencies charged with administrative details;

(3) It would produce practically complete domination by the Federal Government over state and local activities;

(4) It is an opening wedge to the creation of a huge Federal and politically-controlled public health and medical program;

(5) It would encourage extravagance and inefficiency in the fields of public health and medical care, and thus would add tremendously to the tax burden of all the people and would not be beneficial to those persons designated as ultimate beneficiaries.

Group Medical Service Plan for Low-Income Groups Approved by Toledo Academy of Medicine

On March 17, the Toledo Academy of Medicine in special session approved by an overwhelming majority vote, a group medical service plan designed especially for persons of the low-income group.

The Academy authorized the creation of a corporation to be known as Toledo Medical Services, Inc., under the control and supervision of the Academy. All licensed and reputable physicians of Lucas County may become participating physicians. Subscribers, to be received in groups, will have free choice of physician among the participating physicians.

A tentative monthly premium schedule has been suggested as follows: $2.00 per subscriber; an additional amount of $1.50 per month for the first dependent or unemployed marital partner; $1.00 per month for the second dependent; 50 cents per month for each additional dependent. A maximum cost of $5.00 per month for a family regardless of size is being considered. Complete details of the plan, as approved, were not available as *The Journal* went to press.

The committee which has been working months on the Toledo plan is headed by Dr. Fred M. Douglass. Other members are: Drs. L. N. Miller, F. N. Nagel, C. E. Hufford, W. A. Neill, E. W. Huffer, B. J. Hein, A. A. Applebaum, R. J. Borer, A. L. Bershon, Bernard Botsch, A. A. Brindley, W. W. Beck, T. H. Brown, L. I. Clark, M. W. Diethelm, Paul Ensign, Karl Figley, C. L. Felker, Will Gardiner, E. B. Gillette, W. W. Green, T. C. Kiess, C. S. Mundy, F. P. Osgood, C. H. Patterson, H. M. Scott, R. H. Snyder, Dale Wilson, and R. C. Young.

Coming Meetings

Ohio State Medical Association, Toledo, May 3-4.

American Medical Association, St. Louis, May 15-19.

American Academy of Tuberculosis Physicians, St. Louis, May 13-14.

American Association for the Study of Neoplastic Diseases, Detroit, April 6-8.

American Association for Traumatic Surgery, Hot Springs, Va., May 8-9.

American Association for the History of Medicine, Atlantic City, April 30-May 1.

American Association on Mental Deficiency, Chicago, May 3-6.

American Association of Anatomists, Boston, April 6-8.

American Association of Pathologists and Bacteriologists, Richmond, Va., April 6-7.

American Association for the Study of Goiter, Cincinnati, May 22-24.

American Gastro-Enterological Association, Atlantic City, May 1-2.

American Congress of Obstetrics and Gynecology, Cleveland, Sept. 11-15.

American Laryngological, Rhinological and Otological Society, Chicago, May 10-11.

American Medico-Legal Association, Chicago, May 12-13.

American Pediatric Society, Sky Top, Pa., April 27-29.

American Physiological Society, Toronto, Canada, April 26-29.

American Psychiatric Association, Chicago, May 8-12.

American Society for Clinical Investigation, Atlantic City, May 1.

American Society of Anesthetists, New York, April 14.

American Society of Clinical Pathologists, St. Louis, May 12-14.

American Surgical Association, Hot Springs, Va., May 11-13.

American Therapeutic Society, St. Louis, May 12-13.

American Urological Association, White Sulphur Springs, W. Va., May 29-June 1.

Associated Anesthetists of the United States and Canada, St. Louis, May 15.

Association for the Study of Internal Secretions, St. Louis, May 13-14.

Association of American Physicians, Atlantic City, May 2-3.

Association of Military Surgeons of the United States, Washington, D. C., May 8-10.

International College of Surgeons, New York, May 22-24.

National Gastroenterological Association, New York, June 1-2.

Society for the Study of Asthma and Allied Conditions, Atlantic City, April 29.

Annual Report of the Committee on Public Relations And Economics

IN reporting on its activities during the past year, the Committee on Public Relations and Economics believes that it is unnecessary for the committee to present a detailed account of its work inasmuch as the achievements and deliberations of the committee have been reported from time to time to The Council and have been published in *The Journal* as a part of the minutes of the proceedings of The Council.

The Committee on Public Relations and Economics assisted The Council in formulating the suggested expansion program which will be presented to the House of Delegates for action. We are particularly anxious that the expansion program be undertaken because it provides ways and means for the formation and operation of an effective public relations or public education program on the part of the Ohio State Medical Association. The Association, we believe, has been lax in presenting information and the views of the medical profession to the public at large. Steps to correct this situation must not be delayed and, for that reason, your committee heartily endorses the recommendations of The Council that the dues of the State Association be increased $2.00 per year for the purpose of financing a real public relations program in addition to other necessary activities, all of which cannot be carried on under the present income of the Association.

During the past four or five months the State Headquarters Office, assisted by The Council and this committee, has initiated a public relations program on a small scale but, obviously, this work cannot be carried on indefinitely, nor can it be properly expanded unless adequate personnel and finances are provided. A pamphlet entitled "Compulsory Health Insurance Is Not The Answer", in which the evils of government-controlled medical programs were cited and a review of the constructive programs now being carried on by the medical profession was presented, was published shortly before the first of the year by the State Association. Each member of the Association was furnished with a copy of this pamphlet at the time his 1939 membership card was sent to him. To date 6,235 copies of this pamphlet have been distributed to individual members, to county medical societies, and other interested individuals and organizations. Also, with the approval of The Council and this committee, a leaflet entitled, "A Question Which Every Citizen of Ohio Must Answer! Do You Want Your Own Doctor . . . or the 'State Doctor'?", was published and made available to members on request for distribution to patients and friends. So far, 26,050 of these leaflets have been distributed and requests for the leaflets are filed almost daily with the State Headquarters Office. This activity merely is a small example of what can and should be done on a larger scale to acquaint members of the profession with acute problems and to present the viewpoint of the medical profession to the people of Ohio. The medical profession needs the support and confidence of the public. The public needs accurate information and competent advice. It is the obligation of the medical profession, through its constituted medical societies, to supply the public with proper information and advice. If this is done in an efficient manner, the public will benefit and, in the long run, the profession will benefit. Proper public relations, in the opinion of your committee, is an item of first importance on the agenda of the Ohio State Medical Association.

PRE-ELECTION PROGRAM

Much of the time of the committee since the last Annual Meeting has been devoted to the consideration of political and legislative problems. Assisted by the members of the Sub-Committee on Legislation and most of the legislative committeemen of the component county societies, the Committee on Public Relations and Economics conducted an active educational campaign prior to the General Election in November, 1938. Practically every candidate for national and state elective offices (approximately 400) was interviewed by committees of physicians prior to the election and his attitude on medical and public health questions ascertained. Material thus secured was analyzed carefully and the proper information disseminated to the entire membership of the State Association through the local legislative committees. In October, 1938, a state-wide Legislative Conference was held in Columbus for the purpose of acquainting officers and committeemen of county medical societies with the data collected, the necessity for active work in every part of the state, and the procedure which had been outlined for pre-election activities.

The net result of this program was that greater activity and interest than ever before were taken by members of the Association, generally, in all parts of the state in political and governmental affairs and the Association was able to assemble accurate and authentic information regarding candidates. The program had a two-fold beneficial effect. In the first place, it awakened members of the profession to the necessity of taking

an active interest in public affairs; and in the second, it brought to the attention of candidates the fact that the medical profession is actively interested in the affairs of government and wields considerable voting strength.

Your committee, at this time, wishes to express sincere appreciation to the members of the Sub-Committee on Legislation for the splendid work which they did in their respective legislative districts and to thank those local committeemen who did such an efficient job in their respective counties. We firmly believe that the 1938 program marked a turning point in the history of the State Medical Association with respect to its public relations. We feel that more members today than ever before are vitally interested in public affairs and are desirous of seeing the medical profession, through its State Association and local units, carry on an even more active campaign in future years than the one which was conducted last Summer and Fall. It was clearly demonstrated that such activities must have the active support of local units to insure their success, with direction and leadership vested in the proper committees of the State Association.

LEGISLATIVE ACTIVITIES

Following the election and up to the present time, the Committee on Public Relations and Economics and the Sub-Committee on Legislation have concerned themselves primarily with the important duties of reviewing proposals submitted to the 93rd Ohio General Assembly, which convened in January, and suggesting to The Council policies for or against such proposals. Also these committees have undertaken the important job of keeping local legislative committeemen promptly and accurately informed on legislative developments at Columbus, recommending from time to time what action should be taken "back home" to bring about the enactment or defeat of bills pending in the Legislature. Because the General Assembly was in full swing at the time this report was prepared, we shall not attempt to comment on specific measures as information on bills in which the medical profession is interested is disseminated weekly through the regular bulletins and monthly through *The Ohio State Medical Journal.*

However, one point which needs emphasis is this: Efficient legislative work cannot be carried on by the State Medical Association unless the committees and officers of the State Association and the personnel of the State Headquarters Office have the active support and cooperation of all county medical societies. Too often this statement is made by members of the General Assembly: "The physicians in my county have not discussed that bill with me. Therefore, how do I know how they stand on it?". Legislative activities must be state-wide in scope but, at the same time, they must be carried on in an intense fashion in each county through constant contacts between representatives of the county medical society and the member or members of the Legislature from that county.

WORKMEN'S COMPENSATION

As in previous years, the State Medical Association has cooperated with and furnished advice to the State Industrial Commission through the Sub-Committee on Workmen's Compensation. Several conferences have been held during the past year with officials of the State Industrial Commission, particularly the Medical Division. Recommendations for changes in the rules and regulations governing physicians, hospitals, nurses, etc., and in some instances in the general medical and surgical fee schedules have been presented to the Commission following such conferences. Some of these recommendations have already been adopted by the Commission; others are receiving serious consideration. We believe it is of vital importance for the profession, through the State Association, to keep in active touch with the Commission. Members should feel perfectly free to submit suggestions or criticisms to the State Headquarters Office so that they can be evaluated by the Sub-Committee on Workmen's Compensation and proper information submitted to the Industrial Commission.

The Workmen's Compensation investigating service, which is one of the important activities carried on by the State Headquarters Office, is being used more and more by individual members. The Industrial Commission has endorsed this service and members should feel free to make use of it at all times.

NATIONAL DEVELOPMENTS

In addition to the above activities, your committee, of course, has kept in close touch with other governmental departments, bureaus, commissions and agencies charged with the administration of medical and public health activities. Whenever possible the committee has assisted such agencies and has endeavored to guide them in such a way that their activities will meet with the full approval of the medical profession, generally. At the same time, the committee has on a number of occasions been instrumental in preventing the inauguration of activities which it felt would not be beneficial to the public and would meet with serious objection on the part of the profession.

We have endeavored to keep in close touch with activities at Washington through reliable reporting agencies at Washington and through information furnished by the American Medical Association. Information which has been obtained has been published in *The Ohio State Medical Journal,* and every effort will be made to keep the members promptly informed on any new developments of

particular interest. The Committee on Public Relations and Economics has had an opportunity to analyze rather carefully the present attitude of the majority of the members of the State Association with respect to public affairs affecting public health or the medical profession. We believe that at the present time many more members than ever before realize that the medical profession must become a vocal, energetic and alert group in order to prevent political and governmental domination of health and medical activities. This is a hopeful sign, in our opinion. At the same time, permit us to point out that mere expression of sentiments will not suffice. Convictions must be followed up with activity. Every member must do his part and not expect his colleagues to take the full responsibility. In addition, the medical profession must win the support of other professional groups and substantial business interests, all of which are directly affected by governmental activities having a detrimental effect on public health and the practice of medicine.

D. B. LOWE, M.D., *Akron, Chairman,*
CHAS. W. STONE, M.D., *Cleveland,*
E. O. SWARTZ, M.D., *Cincinnati,*
D. C. HOUSER, M.D., *Urbana,*
H. M. PLATTER, M.D., *Columbus,*
BARNEY J. HEIN, M.D., *Toledo, ex-officio,*
PARKE G SMITH, M.D., *Cincinnati, ex-officio,*
JOHN B. ALCORN, M.D., *Columbus, ex-officio.*

Program for Northern Tri-State Medical Association Meeting, April 11, Hotel Oliver, South Bend, Ind.

The annual meeting of the Northern Tri-State Medical Association will be held at Hotel Oliver, South Bend, Indiana, Tuesday, April 11. Composed of physicians in Indiana, Michigan and Ohio, the association was established in 1873. The officers are: Dr. J. N. Kelly, LaPorte, Indiana, president; Dr. Robert H. Elrod, Toledo, vice-president; Dr. D. R. Brasie, Flint, Michigan, secretary, and Dr. E. B. Gillette, Toledo, treasurer.

The following program will be presented:

MORNING SESSION

8:00—Dr. Charles G. Johnston, professor of surgery, Detroit College of Medicine.
"Physiological Implications in the Management of Intestinal Obstruction."

8:45—Dr. Waldo E. Nelson, Department of Pediatrics, University of Cincinnati College of Medicine.
"The Treatment of Diabetes Mellitus in Children."

9:30—Dr. Frank C. Walker, Indianapolis, Ind.
"The Relation of Cervical Lesions to Carcinoma of Cervix Uteri."

10:15—Dr. Daniel P. Foster, physician in charge, Division of Metabolism, Henry Ford Hospital, Detroit, Mich.
"Newer Concepts of Diabetes Mellitus."

11:00—Dr. Harold N. Cole, clinical professor of dermatology and syphilology, Western Reserve University School of Medicine, Cleveland.
"Relapse in Syphilis, Its Importance in Diagnosis, The Public Health Aspect, and Its Treatment."

12 Noon—Luncheon.

AFTERNOON SESSION

1:00—Dr. A. C. Furstenberg, dean and professor of otolaryngology, University of Michigan Medical School, Ann Arbor, Mich.
"Nasal Accessory Sinus Disease in the General Practice of Medicine."

1:45—Dr. Bruce K. Wiseman, associate professor of medicine, Ohio State University College of Medicine, Columbus.
"The Cytolytic Functions of the Spleen in Relation to the Blood Diseases."

2:30—Dr. Norris W. Gillette, Toledo.
"Diagnosis and Results of Treatment of Toxic Goitre."

3:15—Business Meeting.

3:30—Dr. A. Jerome Sparks, Fort Wayne, Ind.
"Calculi in the Upper Urinary Tract."

4:15—Dr. David Edwin Robertson, assistant professor of surgery, University of Toronto, Toronto, Ont.
"The Standard Treatment of Infantile Paralysis."

EVENING SESSION

6:00—Banquet. Ballroom.

7:00—Dr. George B. Eusterman, clinical section, Mayo Clinic, Rochester, Minnesota.
"Chronic Inflammatory Lesions of the Gastric and Duodenal Mucosa; Their Significance in Medical Practice."

Report on Tests for Intoxication

The 1938 report of the National Safety Council's Committee on Tests for Intoxication, published recently, presents the results of a special study of chemical tests for intoxication. Two sections are devoted to medical-legal phases of the problem. One of the most valuable parts of the report is the revised set of instructions which has been prepared for use by police officers, physicians and prosecutors in obtaining convincing evidence of intoxication and presenting this evidence properly in court. Copies of the report can be obtained by writing the National Safety Council, 20 North Wacker Drive, Chicago.

Annual Report of Special Committee on Poor Relief

ACTIVITIES of the Special Committee on Poor Relief have been reviewed on several occasions in *The Ohio State Medical Journal*. The last report of the committee was that submitted to The Council on December 3 and 4, 1938, and published as a part of The Council minutes in the January, 1939, issue of *The Journal*. Since the December 3, 1938, report to The Council, the work of the committee has been confined largely to following developments on poor relief legislation in the General Assembly. When the Emergency State Relief Act was presented to the General Assembly in January, covering a six months' period, and subsequently enacted by the Assembly, recommendations of the Special Committee on Poor Relief providing that state funds could be used locally to reimburse physicians for the care of those on relief were written into the proposal. Obviously, efforts will be made to have the same provisions enacted in the pending State Relief Act to cover the succeeding 18 months of the biennium.

BILLS MOVING SLOWLY

Up to the time this report was prepared little progress has been made in the General Assembly with respect to bills calling for centralization of relief administration in the various counties. One bill which would centralize, under a county welfare department, the administration of some public assistance activities such as aid to dependent children, aid to the blind, and other non-institutional county welfare and relief activities now under the supervision of the county commissioners, has met with considerable opposition. The prevailing sentiment in the 93rd General Assembly appears to be against centralization of governmental functions, even on a county basis, and against changes in the powers and duties of local political subdivisions. For this reason your committee believes that the Legislature probably will not seriously consider any recommendation which would centralize within a county, relief activities now vested in the township trustees and municipalities. We believe that our original recommendation for centralization of relief work is sound and that ultimately legislation in line with this thought will be enacted. However, it is doubtful if any legislative action will be taken at this session of the General Assembly. Greater organized effort on the part of more interested organizations will be necessary to accomplish this ultimate goal.

A proposal suggested by the committee eliminating certain words from Section 3480 of the General Code, which gives township trustees and municipal authorities arbitrary power to determine whether a physician's fee is "just and reasonable" was introduced. The bill has not made much progress, primarily for reasons cited above, and because of an unusual amount of opposition by the State Association of Township Trustees. At this time the outlook for this bill is none too bright.

ACTIVE INTEREST LAGGING

Your committee finds that many physicians throughout the state are quite ready to express themselves as being dissatisfied with the present poor relief setup but, in the final analysis, **appear to be unwilling to take any action in support of the proposals which the Committee on Poor Relief has endorsed and is trying to have enacted.** Legislation designed to help solve the medical relief problem cannot be passed unless it receives the active, unanimous support of the medical profession throughout the state, as well as the organized support of allied groups.

Although the committee is disappointed at what it believes will be the ultimate outcome of legislative proposals it hoped to see enacted, it believes that it has made some progress due to the fact that it has assembled much valuable data, has aroused some of the county medical societies to the point where they are taking an active interest in attempts to solve the medical relief question, has stimulated the creation of special poor relief committees in a few counties, and has laid the ground work for a more effective approach to the solution of this problem on a state-wide basis.

We trust that The Council will see fit to permit the Committee on Poor Relief to continue its work during the coming year. The committee has started some activities which it would like very much to complete. Also, under the direction of The Council it would like to carry on an educational campaign, through the county medical societies, thereby arousing greater interest in this problem and stimulating the creation of machinery for a better-organized attack at some future session of the State Legislature. Unless the profession, generally, is willing to put its shoulder to the wheel, little toward solving the medical relief question can be accomplished. Your committee believes that sufficient interest can be aroused. It would welcome permission to undertake that responsibility.

W. K. STEWART, M.D., *Youngstown, Chmn.*,
DOW ALLARD, M.D., *Portsmouth,*
R. S. BINKLEY, M.D., *Dayton,*
W. L. DENNY, M.D., *Cambridge,*
E. B. GILLETTE, M.D., *Toledo,*
W. A. HOLMAN, M.D., *London,*
FOWLER B. ROBERTS, M.D., *Akron,*
E. O. SWARTZ, M.D., *Cincinnati,*
F. S. VAN DYKE, M.D., *Canton,*
R. N. WHITEHEAD, M.D., *Bowling Green*

Ninety-Third Annual Meeting

OHIO STATE MEDICAL ASSOCIATION

Commodore Perry Hotel, Toledo, Ohio
Wednesday and Thursday,
May 3 and 4, 1939

SUMMARY OF PROGRAM . . .

Wednesday, May 3

9:30 A.M. HOUSE OF DELEGATES.
El Dorado Room, Lobby Floor, Commodore Perry Hotel.
Annual Address of the President and Business Session.

10:00 A.M. FIRST GENERAL SESSION.
Main Ballroom, Mezzanine Floor, Commodore Perry Hotel.
Henry J. Gerstenberger, M.D., Cleveland; Anthony J. Lanza, M.D., New York, N.Y.; Harry Goldblatt, M.D., Cleveland; and Herman O. Mosenthal, M.D., New York, N.Y.

12:30 P.M. PUBLIC HEALTH ROUND-TABLE LUNCHEON.
Silver Ballroom Terrace, Mezzanine Floor, Hotel Secor.
Under auspices of Section on Public Health and Preventive Medicine. Speakers: R. H. Markwith, M.D., State Director of Health, Columbus, and Carl A. Wilzbach, M.D., Health Commissioner, City of Cincinnati.

1:15 P.M. FORMAL OPENING OF TECHNICAL EXHIBITS.
Crystal Room, Commodore Perry Hotel.

1:30 P.M. ROUND-TABLE CONFERENCES.
(Twelve Conferences)
Commodore Perry Hotel.

3:00 P.M. SESSIONS OF THREE SCIENTIFIC SECTIONS:
SECTION ON SURGERY,
Main Ballroom, Mezzanine Floor, Commodore Perry Hotel.
SECTION ON PEDIATRICS,
Private Dining Rooms 2, 3 and 4, Mezzanine Floor, Commodore Perry Hotel.
SECTION ON OBSTETRICS AND GYNECOLOGY,
Silver Ballroom, Mezzanine Floor, Hotel Secor,
(Opposite the Headquarters Hotel).

8:00 P.M. SECOND GENERAL SESSION.
Main Ballroom, Mezzanine Floor, Commodore Perry Hotel.
Elliott C. Cutler, M.D., Boston, Mass., and
Bradley M. Patten, Ph.D., Ann Arbor, Mich.

Thursday, May 4

9:30 A.M. SESSIONS OF THREE SCIENTIFIC SECTIONS:

SECTION ON MEDICINE,

Main Ballroom, Mezzanine Floor, Commodore Perry Hotel.

SECTION ON EYE, EAR, NOSE AND THROAT,

Silver Ballroom, Mezzanine Floor, Hotel Secor,

(Opposite the Headquarters Hotel).

SECTION ON NERVOUS AND MENTAL DISEASES,

Private Dining Rooms 2, 3 and 4, Mezzanine Floor, Commodore Perry Hotel.

12:00 Noon HOUSE OF DELEGATES LUNCHEON AND FINAL SESSION.

El Dorado Room, Lobby Floor, Commodore Perry Hotel.

1:30 P.M. THIRD GENERAL SESSION.

Main Ballroom, Mezzanine Floor, Commodore Perry Hotel.

Bernhard Steinberg, M.D., Toledo; Allen F. Voshell, M.D., Baltimore, Md.; Johnson McGuire, M.D., Cincinnati; Elmer L. Sevringhaus, M.D., Madison, Wis.; George M. Curtis, M.D., Columbus; and W. W. Herrick, M.D., New York, N.Y.

7:30 P.M. ANNUAL BANQUET.

Main Ballroom, Mezzanine Floor, Commodore Perry Hotel.

Academy of Medicine of Toledo and Lucas County, host.

1. Presentation of Past-President's Gavel and Introduction of Incoming President and President-Elect.
2. Address by Hon. John W. Bricker, Governor of Ohio.

HOUSE OF DELEGATES . . .

OPENING SESSION

Wednesday Morning, May 3

9:30 o'clock

Meeting Place—El Dorado Room, Lobby Floor, Commodore Perry Hotel

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Presentation of the President of the Ohio State Medical Association by Carll S. Mundy, M.D., President, The Academy of Medicine of Toledo and Lucas County.

In the chair, BARNEY J. HEIN, M.D., *President, Ohio State Medical Association.*

1. Call to Order by the President.
2. Roll Call.

3. Consideration of the Minutes of last Annual Meeting. (June, 1938, issue, *The Journal.*)

4. Annual Address of the President.

5. Appointment of Reference Committees by the President:
   (a) Committee on Presidential Address.
   (b) Committee on Resolutions.
   (c) Committee on Annual Reports.
   (d) Committee on Credentials of Delegates.
   (e) Committee on Tellers and Judges of Election.
   (f) Committee on Time and Place of 1940 Annual Meeting.

6. Reports of Standing Committees:

   (Reports submitted by title only as they were published in full in the April, 1939, issue, *The Journal.*)

   (a) Public Relations and Economics—D. B. Lowe, M.D., Akron, Chairman.
   (b) Education—C. L. Cummer, M.D., Cleveland, Chairman.
   (c) Judicial and Professional Relations—L. L. Bigelow, M.D., Columbus, Chairman.
   (d) Auditing and Appropriations—Wm. M. Skipp, M.D., Youngstown, Chairman; James A. Beer, M.D., Columbus, Treasurer.

7. Nomination and Election of Committee on Nominations:

   (Nominations from the floor with one representative from each Councilor District. This committee shall report to the second session, Thursday, 1:00 P.M., its recommendations in the form of a ticket, containing nominees for constitutional offices as required under the Constitution and By-Laws.)

8. Introduction of Resolutions:

   (Resolutions must be introduced at this session of the House of Delegates, referred to the Reference Committee on Resolutions and reported back to the House at the Thursday afternoon session before any action can be taken. All resolutions must be typewritten and submitted in duplicate.)

9. Submission of invitations for next Annual Meeting:

   (It is necessary that invitations for the 1940 Annual Meeting be referred to the Reference Committee on Time and Place of Annual Meeting.)

10. Miscellaneous Business.

11. Recess.

SECOND AND FINAL SESSION

Thursday Noon, May 4

12:00 o'clock

Meeting Place—El Dorado Room, Lobby Floor,
Commodore Perry Hotel

Complimentary Luncheon for Delegates and Officers.

Final Business Session:

1. Roll Call.

2. Consideration of unfinished business from Wednesday's session of the House of Delegates.

3. Reports of Reference Committees:
   (a) Committee on Time and Place of 1940 Annual Meeting.
   (b) Committee on Presidential Address.
   (c) Committee on Annual Reports.
   (d) Committee on Resolutions.

4. Miscellaneous Business.

5. Election of President-Elect. Nominations from the floor.

6. Report of Committee on Nominations:

   (a) Election of Members of The Council.

   (Members of The Council are elected for two-year terms, terms of those representing even numbered districts expiring in odd numbered years.)

   To be elected:

   Councilor, Second District—(Incumbent, D. W. Hogue, M.D., Springfield.)
   Councilor, Fourth District—(Incumbent, E. J. McCormick, M.D., Toledo.)
   Councilor, Sixth District—(Incumbent, Wm. M. Skipp, M.D., Youngstown.)
   Councilor, Eighth District—(Incumbent, E. R. Brush, M.D., Zanesville.)
   Councilor, Tenth District—(Incumbent, C. C. Sherburne, M.D., Columbus.)

   (b) Election of Delegates and Alternates to the American Medical Association.

   Those whose terms expire at this time are:

   G. F. Zinninger, M.D., Canton.
   Wm. M. Skipp, M.D., Youngstown. (Alternate.)

   C. E. Kiely, M.D., Cincinnati.
   L. Howard Schriver, M.D., Cincinnati. (Alternate.)

   C. W. Waggoner, M.D., Toledo.
   Charles Lukens, M.D., Toledo. (Alternate.)

7. Installation of Officers for 1939-1940.

8. Submission of committee appointments by new President for confirmation by House of Delegates.

9. Unfinished Business.

10. Adjournment.

DELEGATES AND ALTERNATES . . .

Counties	*Delegates*	*Alternates*
ADAMS	R. C. Wenrick	
ALLEN	J. R. Tillotson	E. H. Hedges
ASHLAND	E. L. Clem	M. D. Shilling
ASHTABULA	R. B. Wynkoop	J. F. Docherty
ATHENS	B. R. Goldsberry	J. R. Sprague
AUGLAIZE	Guy E. Noble	R. C. Hunter
BELMONT	Louis L. Liggett	Harry G. Harris
BROWN	Geo. P. Tyler, Jr.	R. B. Hannah
BUTLER	Chas. T. Atkinson	D. M. Blizzard
CARROLL	Lewis Cellio	John H. Murray
CHAMPAIGN	D. C. Houser	Mark C. Houston
CLARK	G. M. Lane	L. H. Mendelson
CLERMONT	C. F. Barber	J. M. Coleman

Counties	*Delegates*	*Alternates*
CLINTON	Robert Conard	
COLUMBIANA	John A. Fraser	Paul H. Beaver
COSHOCTON	J. G. Smailes	Floyd Wm. Craig
CRAWFORD	Chas. H. King	K. H. Barth
CUYAHOGA	G. F. Sykes	M. F. Oman
	H. C. King	F. J. Vokoun
	C. D. Waltz	L. M. Starin
	C. G. LaRocco	Harold Green
	E. F. Kieger	M. Paul Motto
	Milton B. Cohen	R. J. Frackelton
	Ralph M. Watkins	George H. Lewis
	B. B. Larsen	C. E. Kinney
	Donald M. Glover	D. A. Chambers
	C. H. Heyman	J. E. Tuckerman
	I. H. Einsel	F. T. Gallagher
DARKE	C. I. Stephen	C. F. Frankman
DEFIANCE	D. J. Slosser	Paul B. Newcomb
DELAWARE	Geo. T. Blydenburgh	Kendall Kennedy
ERIE	Ross M. Knoble	A. R. Grierson
FAIRFIELD	R. H. Smith	C. H. Hamilton
FAYETTE	James M. Harsha	Paul S. Craig
FRANKLIN	I. B. Harris	J. M. Dunn
	J. H. J. Upham	H. E. LeFever
	Leslie L. Bigelow	John H. Mitchell
	John M. Thomas	John E. Brown, Jr.
	Geo. T. Harding	R. C. Obetz
	E. J. Emerick	Link M. Murphy
FULTON	Geo. McGuffin	Lee E. Botts
GALLIA	W. Lewis Brown	S. L. Bossard
GEAUGA	H. E. Shafer	C. F. Gilmore
GREENE	H. C. Messenger	C. G. McPherson
GUERNSEY	B. A. Souders	Paul O. Huth
HAMILTON	Emil R. Swepston	George Renner, Jr.
	Max M. Zinninger	Joseph A. Lindner
	Ralph Carothers	
	Otto J. Seibert	Daniel C. Rivers
	E. O. Swartz	Irving H. Schroth
	Howard D. Fabing	Lloyd B. Johnston
	Henry B. Freiberg	Wm. J. Topmoeller
HANCOCK	John V. Hartman	John M. Firmin
HARDIN	R. G. Schutte	J. F. Holtzmuller
HARRISON	James A. L. Toland	G. E. Vorhies
HENRY	J. J. Harrison	T. P. Delventhal
HIGHLAND	H. W. Chaney	J. H. Frame
HOCKING	C. T. Grattidge	A. K. Smith
HOLMES	Neven P. Stauffer	J. C. Elder
HURON	J. C. Steiner	O. J. Nicholson
JACKSON	J. S. Hunter	J. J. McClung
JEFFERSON	S. J. Podlewski	John P. Smarrella
KNOX	F. C. Anderson	Julius Shamansky
LAKE	V. N. Marsh	Ben Fisher
LAWRENCE	Chester A. Casey	Geo. G. Hunter
LICKING	George A. Gressle	J. Fleek Miller
LOGAN	C. K. Startzman	F. Blair Webster

Counties	*Delegates*	*Alternates*
LORAIN	S. V. Burley	Waite Adair
	Chas. R. Meek	E. J. Heinig
LUCAS	E. B. Gillette	R. C. Young
	A. A. Brindley	A. P. Hancuff
	John F. Wright	E. G. Galbraith
MADISON		
MAHONING	Walter K. Stewart	Ivan C. Smith
	O. J. Walker	Edward J. Reilly
	Gordon G. Nelson	Dean A. Nesbit
MARION	C. L. Baker	R. G. McMurray
MEDINA	Morris Wilderom	H. G. Lehrer
MEIGS	P. A. Jividen	Byron Bing
MERCER	G. I. Scheetz	Charles C. Henrie
MIAMI	G. A. Woodhouse	H. W. Kendell
MONROE	A. R. Burkhart	
MONTGOMERY	H. V. Dutrow	G. C. Grout
	A. W. Carley	E. M. Smith
	P. L. Yordy	M. R. Haley
	C. J. Derby	T. M. K. Kirk
MORGAN	A. H. Whitacre	
MORROW	F. M. Hartsook	J. P. Ingmire
MUSKINGUM		
NOBLE		
OTTAWA	G. A. Boon	E. D. Schuiteman
PAULDING	F. A. McCammon	Fred E. Spragens
PERRY	James Miller	Edgar D. Allen
PICKAWAY	H. D. Jackson	A. D. Blackburn
PIKE	L. E. Wills	R. M. Andre
PORTAGE	A. J. Silbiger	H. S. Wendorf
PREBLE	Geo. W. Flory	J. I. Nisbet
PUTNAM	O. J. Fatum	W. D. Hickey
RICHLAND	John S. Hattery	Frank H. Maxwell
ROSS	O. P. Tatman	R. L. Counts
SANDUSKY	C. I. Kuntz	Roy K. Evans
SCIOTO	Dow Allard	J. P. McAfee
SENECA	R. R. Hendershott	Paul J. Leahy
SHELBY	C. C. Hussey	A. B. Gudenkauf
STARK	Geo. F. Zinninger	L. L. Frick
	George N. Wenger	A. W. Warren
	John M. Van Dyke	Perry F. King
SUMMIT	Carl R. Steinke	Fowler B. Roberts
	Robert T. Allison	Jas. G. Kramer
	H. H. Musser	D. C. Brennan
	D. B. Lowe	W. A. Hoyt
TRUMBULL	R. D. Herlinger	J. D. Knox
TUSCARAWAS	J. W. Calhoon	Burnell Russell
UNION	Harry G. Southard	John Dean Boylan
VAN WERT	R. H. Good	Chester A. Morgan
VINTON	H. D. Chamberlain	
WARREN	N. A. Hamilton	Frank L. H. Batsche
WASHINGTON	Geo. E. Huston	Ford E. Eddy
WAYNE	R. C. Paul	L. A. Adair
WILLIAMS	H. W. Wertz	E. R. Jacka
WOOD	Paul F. Orr	Earl D. Foltz
WYANDOT	J. Craig Bowman	R. L. Garster

GENERAL SESSIONS . . .

FIRST GENERAL SESSION

Wednesday Morning, May 3

10:00 o'clock

Meeting Place—Main Ballroom, Mezzanine Floor, Commodore Perry Hotel

STANLEY D. GIFFEN, M.D., *Toledo,* Member, Committee on Scientific Work, presiding.

10:00 to 10:30

THE VITAMIN PROBLEM IN INFANTS AND CHILDREN

HENRY J. GERSTENBERGER, M.D., *Cleveland.*

As a result of the progress made in recent years in the study of vitamins, particularly concerning the vitamin B_2 complex, the subject has, at one and the same time, become, for the practicing physician, more important and more involved. It is a rather difficult to see clearly through the mass of material at hand and, therefore, conclusions reached at the present time may have but a temporary value. However, the present state of our knowledge justifies the recognition of vitamins A, B, C, G, and the so-called vitamin D, as being of primary importance in the maintenance of health. The physiological roles of these vitamins, the daily amounts required and their most practical source, will be discussed in addition to the pathological states which develop when inadequate amounts are ingested by infants and children.

10:30 to 11:15

SILICOSIS—PRESENT STATUS

ANTHONY J. LANZA, M.D., *New York, N. Y.,*
Assistant Medical Director, Metropolitan Life Insurance Co.

An endeavor to present the present status of silicosis in the United States, especially from the viewpoint of industry and the physician who serves industry. Laboratory research during past few years has clarified our knowledge of pathology but has not cleared up the relationship between silicosis and tuberculosis. There is evidence that certain substances that may be present in the dust along with silica may tend to retard the action of silica in the pulmonary tissues. Our concept of etiology remains unchanged. Silicosis is due to the action of silica dust on the lungs, the severity of the action being predicated upon the amount of silica to which the lungs are exposed, including both the time factor and the concentration of silica in the atmosphere. Diagnosis is dependent upon a satisfactory roentgenogram of the chest, together with a history of exposure. Industrial factors should be clearly understood if mistakes are to be avoided. The clinical picture varies in different industries.

11:15 to 11:45

EXPERIMENTAL OBSERVATIONS ON THE TREATMENT OF HYPERTENSION

HARRY GOLDBLATT, M.D., *Cleveland.*

A summary of investigations on experimental hypertension produced by renal ischemia and the application of the results to the problem of the treatment of human hypertension.

11:45 to 12:30

THE TREATMENT OF NEPHRITIS

HERMAN O. MOSENTHAL, M.D., *New York, N.Y.,*
Clinical professor of medicine, New York Postgraduate Medical School of Columbia University.

The treatment of nephritis is primarily concerned with the prevention and cure of lesions in the kidney. While these conditions are acute, attention

may be focused upon them possibly to the detriment of the body in certain directions. However, when the renal pathology persists, care must be taken that there is adequate nutrition and maintenance and that degenerative changes do not ensue from deficient diets. The intelligent regulation of proteins, especially the meats and alcohol, are the factors that call for most attention because they have been rather arbitrarily cast aside as harmful in Bright's disease, whereas in reality the proteins are a necessity and alcohol a help in the management of kidney disease. The continuance of the pathological processes in the kidneys often entails secondary changes, especially edema, hypertension, impairment of renal function, anemia and uremia. These are really symptoms but if they are not accorded treatment as though they were disease entities, the patient will suffer. Management has been clarified a great deal and we can now proceed with confidence in certain directions, particularly in regard to diet, diuretics and blood transfusions.

SECOND GENERAL SESSION

Wednesday Evening, May 3

8:00 o'clock

Meeting Place—Main Ballroom, Mezzanine Floor,
Commodore Perry Hotel

BARNEY J. HEIN, M.D., *Toledo,* President, presiding.

8:00 to 9:00

PREOPERATIVE AND POSTOPERATIVE CARE

ELLIOTT C. CUTLER, M.D., *Boston, Mass.,*
Moseley professor of surgery, Harvard University Medical School.

Great advances have been made in preoperative care, due to our increased knowledge in the fields of physiology and biochemistry. We know that the less a patient is disturbed from his normal routine ways of eating, moving and sleeping, the better he is protected against postoperative difficulties. This actually means the minimum of preoperative preparation except where altered mechanisms need adjustment such as the circulation, the basal metabolic rate, hyper- or hypoglycemia, etc. The special indications for preoperative care largely concern elderly and poor-risk patients who must undergo surgical operations. Here protracted study is necessary, and every attempt must be made to restore altered functions to normal. The matters which demand post-operative care are those which ensue from the technical performance of the operation, and the majority of them may be prevented by proper technical surgery.

9:00 to 10:00

MICRO - CINEMATOGRAPHIC AND ELECTROCARDIOGRAPHIC STUDY OF THE FIRST HEART BEATS AND THE BEGINNING OF THE CIRCULATION IN LIVING EMBRYOS

BRADLEY M. PATTEN, PH.D., *Ann Arbor, Mich.,*
Professor of anatomy and director of Department of Anatomy, University of Michigan Medical School.

The subject matter is selected from a series of studies carried out on embryos kept alive with the aid of specially constructed glass chambers and artificial nutrient media. By this method it is possible to keep the living heart under continuous observation for long periods and to study the changes in its activities which accompany its structural development. Inherent local differences in contraction rate and direction of propagation of beat were recorded by means of micro-moving pictures. This phase of the work was done in collaboration with Mr. T. C. Kramer of the University of Michigan. A parallel study of the electrical phenomena in the embryonic heart was carried out with the collaboration of Mr. Kramer, and Doctors Hoff and Delafield DuBois of Yale University. By the use of three-stage amplification, a series of records was obtained showing the sequential appearance of first, a simple sinusoidal curve, then the ventricular, and later the sino-atrial complexes of the electrocardiogram. Electrocardiograms of adult pattern were obtained from the embryonic heart before its nervous connections are established and before any of the so-called "conduction system" is recognizable histologically.

THIRD GENERAL SESSION

Thursday Afternoon, May 4

1:30 o'clock

Meeting Place—Main Ballroom, Mezzanine Floor, Commodore Perry Hotel

ALBERT F. KUHL, M.D., *Dayton,* Chairman, Committee on Scientific Work, presiding.

1:30 to 2:00

PREVENTION AND TREATMENT OF GENERAL PERITONITIS

BERNHARD STEINBERG, M.D., *Toledo.*

Prevention and treatment of peritonitis must be based on the appreciation of those factors which serve to defend the body or inhibit the defense mechanism. Protection is dependent upon the mobilization and enhancement of the polymorphonuclears. Protection does not imply merely that stage prior to the actual onset of peritonitis, but includes a considerable period following peritoneal contamination. A method and a principle is presented for protection. The essence of the preventive procedure is the enhancement of the available defense mechanism. Treatment in those stages of peritonitis in which the defense elements are partially or completely inhibited differs radically from that of the initial stage. The symptoms, procedures of recognition, and the treatment in the various stages in peritonitis are discussed.

2:00 to 2:45

IMPORTANT FEATURES IN THE TREATMENT OF FRACTURES

ALLEN F. VOSHELL, M.D., *Baltimore, Md.,*
Professor of orthopedic surgery, University of Maryland School of Medicine and College of Physicians and Surgeons.

Some of the fundamental features of fractures in general will be given, such as the division of patients into so-called age periods with the related fracture types for each age; joint plane relations, normal and after fracture, with reasons why reposition is necessary for proper future function; disabilities incident to improper shaft alignment, etc. Some common fractures will then be discussed from the diagnostic and treatment angles principally. Lantern slides will be used to illustrate the various factors under discussion.

2:45 to 3:15

RELATIONSHIP OF CARDIAC OUTPUT TO CONGESTIVE HEART FAILURE

JOHNSON MCGUIRE, M.D., *Cincinnati.*

The modern methods for measuring the output of the heart, i.e., the amount of blood pumped by the heart per minute, are briefly described. The physiologic, pharmacologic and pathologic factors which affect the cardiac output are enumerated. The results of measurements of cardiac output in a group of patients with congestive heart failure of varying severity, studied by us, are reported. The role played by decreased cardiac output in heart failure is discussed.

3:15 to 4:00

PITUITARY THERAPY

ELMER L. SEVRINGHAUS, M.D., *Madison, Wis.,*
Professor of medicine, University of Wisconsin Medical School.

The pituitary gland must be understood from the activity of posterior and anterior lobes separately. Posterior lobe extract, with the oxytocic and pressor fractions, will be discussed. The anterior lobe extracts include the growth promoting materials, the extract which will stimulate the gonads and a number of other extracts which are still used only in clinical research or

chiefly in animal experimental work. The treatment of dwarfism by means of growth promoting extract is not limited to pituitary dwarfism, but can be applied to other failures to grow. The treatment of gonad deficiency by gonadotropic extract requires an understanding of the reciprocal inhibition of the pituitary by the gonad hormone. This type of stimulation should be limited to those cases where results can be measured and where the ordinary treatment of climacteric symptoms is not involved. Details will be illustrated by case records.

4:00 to 4:30

LOBECTOMY IN THE TREATMENT OF BRONCHIECTASIS

GEORGE M. CURTIS, M.D., *Columbus.*

Bronchiectasis is more common than is generally recognized. The simpler forms may not produce outstanding symptoms and consequently may require bronchography for their demonstration. Medical management consisting particularly of adequate postural drainage with repeated lipiodolization may be successfully applied to these earlier forms. Nevertheless, as the disease progresses the bronchi become more dilated while the accumulation of septic sputum increases. Collapse therapy is of little value owing to the stiff bronchial walls. Considerable progress has been made during the past decade in the utilization of lobectomy. While our own experience is not sufficiently extensive to be of statistical value, nevertheless it will serve for orientation in discussing this form of surgical therapy. Preoperative preparation is of the greatest importance. If the remainder of the lung is sufficiently adherent intratracheal anesthesia is not necessary. Leaving open the residual pleural cavity appears to be of value. Lobectomy may be successfully accomplished in patients with bilateral disease.

4:30 to 5:15

MEDICAL COMPLICATIONS OF PREGNANCY AND PUERPERIUM

W. W. HERRICK, M.D., *New York, N.Y.*
Professor of clinical medicine, College of Physicians and Surgeons, Columbia University.

A summary of the experience of an internist who has had a long term of service in an obstetric hospital. The complications of pregnancy having particular medical interest will be discussed. These include the infections; certain metabolic disorders, especially diabetes and thyroid disturbances; heart disease and the toxemias. Discussion of the toxemias will form the major part of this contribution. The relation of the late toxemias to such well-known medical conditions as glomerulonephritis, pyelonephritis, congenital malformations of the kidney and hypertensive cardiovascular disease will be dealt with. A classification of the toxemias is suggested based upon clinical, follow-up and necropsy studies. Diagnosis and treatment will be discussed.

FOURTH GENERAL SESSION

Thursday Evening, May 4

7:30 o'clock

Meeting Place—Main Ballroom, Mezzanine Floor,
Commodore Perry Hotel

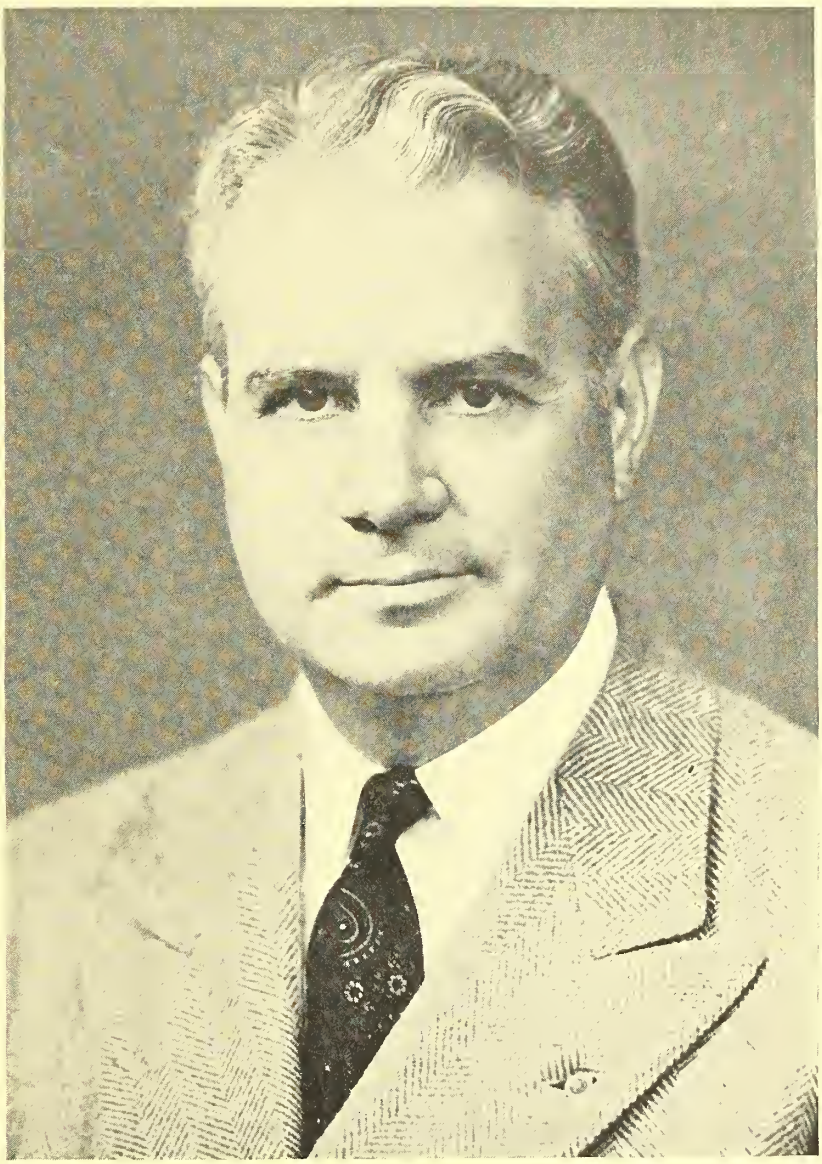
Annual Banquet

LEO P. DOLAN, M.D., *Toledo,* Toastmaster

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1. Presentation of Past-President's Gavel to Retiring President—John B. Alcorn, M.D., Columbus, to Barney J. Hein, M.D., Toledo.
2. Introduction of Incoming President, Parke G. Smith, M.D., Cincinnati, and the new President-Elect.
3. Address by Hon. John W. Bricker, Governor of Ohio.

Guest Speaker at Annual Banquet, May 4, Toledo



GOVERNOR JOHN W. BRICKER

ROUND-TABLE CONFERENCES . . .

Wednesday Afternoon, May 3

1:30 to 3:00 o'clock

Admission by reservation card only, because of limited capacity of rooms. Within a few days each member will receive directly from the Headquarters Office a card on which he may make a reservation for a Round-Table Conference, if he desires to do so. Admission cards will be available, to members making reservations, at the Registration Headquarters at the Toledo meeting.

1. POSTOPERATIVE PULMONARY COMPLICATIONS

LEADERS: Claude S. Beck, M.D., *Cleveland,* Chairman; Elliott C. Cutler, M.D., *Boston, Mass.,* and Edward C. Goldcamp, M.D., *Youngstown.*

Private Dining Room 1, Mezzanine Floor, Commodore Perry Hotel.
Attendance limited to 100.

2. WOUND INFECTIONS

LEADERS: Mont R. Reid, M.D., *Cincinnati,* Chairman; George M. Curtis M.D., *Columbus,* B. N. Carter, M.D., *Cincinnati,* and Jean M. Stevenson, M.D., *Cincinnati.*

French Room, Third Floor, Commodore Perry Hotel.
Attendance limited to 50.

3. VALUE OF X-RAY PELVIMETRY IN OBSTETRICS

LEADERS: Theodore Miller, M.D., *Cleveland,* Chairman; and George L. Sackett, M.D., *Cleveland.*

Room 501, Commodore Perry Hotel.
Attendance limited to 25.

4. USE OF PROTAMINE ZINC INSULIN IN DIABETES

LEADERS: Cecil Striker, M.D., *Cincinnati,* Chairman; Thomas P. Sharkey, M.D., *Dayton,* and James H. Warren, M.D., *Columbus.*

Room 502, Commodore Perry Hotel.
Attendance limited to 25.

5. TREATMENT OF PSYCHOSES OTHER THAN SCHIZOPHRENIA WITH METRAZOL

LEADERS: Joseph L. Fetterman, M.D., Cleveland, Chairman; N. W. Kaiser, M.D., *Toledo,* and Nicholas Michael, M.D., *Columbus.*

Room 601, Commodore Perry Hotel.
Attendance limited to 25.

6. MANAGEMENT OF ASTHMA

LEADERS: Milton B. Cohen, M.D., *Cleveland,* Chairman; Karl D. Figley, M.D., *Toledo,* and Lloyd E. Seyler, M.D., *Dayton.*

Room 602, Commodore Perry Hotel.
Attendance limited to 25.

7. GASTRO-INTESTINAL UPSETS IN INFANTS AND CHILDREN

LEADERS: Henry J. Gerstenberger, M.D., *Cleveland,* Chairman; A. Graeme Mitchell, M.D., *Cincinnati,* and E. R. Thomas, M.D., *Youngstown.*

English Room, Third Floor, Commodore Perry Hotel.
Attendance limited to 50.

8. OFFICE USE AND ABUSE OF SHORT WAVE THERAPY

LEADERS: Judson D. Wilson, M.D., *Columbus,* Chairman; Herbert W. Kendell, M.D., *Dayton,* and Sidney M. McCurdy, M.D., *Columbus.*

Private Dining Rooms 2 and 3, Mezzanine Floor,
Commodore Perry Hotel.
Attendance limited to 50.

9. INDUSTRIAL DERMATOSES

LEADERS: H. J. Parkhurst, M.D., *Toledo,* Chairman; Anthony J. Lanza, M.D., *New York, N.Y.,* and Charles L. Baskin, M.D., *Akron.*

Room 701, Commodore Perry Hotel.
Attendance limited to 25.

10. TREATMENT OF NEPHRITIC EMERGENCIES

LEADERS: George I. Nelson, M.D., *Columbus,* Chairman; Herman O. Mosenthal, M.D., *New York, N.Y.,* and Wm. H. Bunn, M.D., *Youngstown.*

Toledo Room, Third Floor, Commodore Perry Hotel.
Attendance limited to 100.

11. MODERN TREATMENT OF PNEUMONIA

LEADERS: M. A. Blankenhorn, M.D., *Cincinnati,* Chairman; James M. Ruegsegger, M.D., *Cincinnati,* and Gerald S. Shibley, M.D., *Cleveland.*

Room 702, Commodore Perry Hotel.
Attendance limited to 25.

12. TREATMENT OF ABORTIONS

LEADERS: Charles W. Pavey, M.D., *Columbus,* Chairman; Joseph D. Heiman, M.D., *Cincinnati,* and M. D. Haag, M.D., *Toledo.*

Room 801, Commodore Perry Hotel.
Attendance limited to 25.

SECTION ON MEDICINE . . .

JOHN NOLL, JR., M.D., *Youngstown* ..... Chairman
WM. P. GARVER, M.D., *Cleveland* ..... Secretary

Thursday Morning, May 4

9:30 o'clock

Meeting Place—Main Ballroom, Mezzanine Floor,
Commodore Perry Hotel

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10

THE EARLY DIAGNOSIS OF ATYPICAL CORONARY THROMBOSIS

JOHN L. STIFEL, M.D., *Toledo.*

Three cases of coronary thrombosis are presented in which the findings were so atypical that the diagnosis was missed in one case by the essayist, in two by competent cardiologists elsewhere. All are proved cases, one by autopsy, two by the development of a friction rub. Before the diagnosis was evident all cases showed slight but definite cardiographic changes which should have been given greater consideration, namely, low T_1 with high pointed T_3. Some European cardiologists regard this as pathognomonic of type one coronary thrombosis. While American cardiologists do not yet take this stand and it is by no means yet proved, these changes should certainly be viewed with the greatest suspicion and respect. In a review now under way, no tracing like the three above has been found in any other condition.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

FAINTING ATTACKS. THE MECHANISM AND TREATMENT OF CERTAIN CLINICAL TYPES

EUGENE B. FERRIS, JR., M.D., *Cincinnati.*

The signs and symptoms characteristic of fainting attacks are enumerated and the differential diagnosis between syncope (fainting attacks), epilepsy and vertigo is briefly outlined. Our studies of some 100 patients suffering from syncope have clarified the mechanism and treatment of such attacks in many cases. The following clear-cut types have been encountered: (1) carotid sinus syncope; (2) vago-vagal syncope; (3) cardiac syncope; (4) orthostatic syncope; (5) postural hypotension with syncope; (6) indeterminate types including "vasovagal" syncope. With the exception of the last group, the diagnosis of each is described and specific treatment outlined. A knowledge of the underlying mechanism of the attack is necessary for rational specific treatment of a given patient. The known contributory factors common to many types of fainting and their application to therapy are discussed.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

THE DIAGNOSIS, PROGNOSIS, AND TREATMENT OF HODGKIN'S DISEASE

CHARLES S. HIGLEY, M.D., and HARRY HAUSER, M.D., *Cleveland.*

Since first described by Hodgkin in 1832 this disease has been intriguing to the physician because of its unique position in relation to other diseases. Various theories as to its cause are discussed. The significant points in the clinical and laboratory findings are discussed and a differential diagnosis given based on the observations of 75 proved cases of Hodgkin's Disease seen at City Hospital. The prognosis is discussed. A summary of the latest methods of treatment, both medical and roentgenological, is given.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

THE TREATMENT OF GONORRHEAL ARTHRITIS

ROBERT M. STECHER, M.D., and WALTER M. SOLOMON, M.D., *Cleveland.*

Gonorrheal arthritis offers a typical example of joint disease due to specific infectious agent reaching the joint tissues by the blood stream. Disease often characterized by sudden onset of severe, painful arthritis usually involving single, large joint. Is essentially self-limited in nature running its course from a few months to a year and often resulting in complete loss of joint function. Higher percentage of cases subside spontaneously without leaving joint damage than has been suspected. Wide variations occur in the type of onset, severity of the disease, the number and groups of joints involved. Diagnosis can be scientifically proved only by isolation of the gono-

coccus from the joint. Scientific substantiation not practical nor is it even possible in routine practice. Gonorrhea presumed to be the cause of joint disease is any case with sudden onset of an acute arthritis localizing in one joint even after transient involvement of several of the joints in a patient with history of recent gonorrhea and evidence of active presence of this disease in the genital system. Treatment of choice depends upon severity and duration. In early cases without marked effusion in the joints sulfanilamide is the treatment of choice.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

THE VALUE OF SKIN TESTS AS AN AID TO BIOLOGICAL THERAPY IN RHEUMATOID ARTHRITIS

JAMES R. REEVES, M.D., *Columbus.*

Hypersensitivity and immunity seem to be very important in the treatment of chronic infectious states, and if one can determine hypersensitivity and desensitize the individual, then there is much more to be expected from any biological therapy than is planned, so that skin test becomes important when one is trying to determine whether the individual is hypersentive to a certain bacterial product.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON SURGERY . . .

W. K. ALLSOP, M.D., *Youngstown* ..... Chairman
JOHN V. HARTMAN, M.D., *Findlay* ..... Secretary

Wednesday Afternoon, May 3

3:00 o'clock

Meeting Place—Main Ballroom, Mezzanine Floor, Commodore Perry Hotel

3:00 to 3:15

Minutes. Business. Selection of Nominating Committee.

3:15 to 3:40

THE DIAGNOSIS AND TREATMENT OF LEFT SUBPHRENIC ABSCESS

B. N. CARTER, M.D., *Cincinnati.*

Little emphasis has been placed in the past on subphrenic abscesses which occur on the left side. Most surgeons think of subphrenic abscess as really meaning right subphrenic abscess. A review of the literature is given, showing the instance of left subphrenic abscess as compared to the right. The etiology of left subphrenic abscess, together with routes of spread of the infection from elsewhere in the peritoneum to the abscess are given. The anatomy of the left subphrenic space is described; the signs and symptoms are dealt with, especially contrasting them to those of right subphrenic abscess. Six collected cases are reported upon; a new and reliable method of diagnosis with X-ray is emphasized. A brief resumé of treatment is given.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

3:40 to 4:05

END RESULTS FOLLOWING COMMON DUCT OBSTRUCTION

FRED M. DOUGLASS, M.D., *Toledo.*

Review of over 200 common duct obstructions, together with the study of the biliary tree, and a summary of the reasons why the percentage of cures is higher with drainage of the biliary system than with routine cholecystectomy. Consideration of the part residual infection of the liver plays in the morbidity. Comparative results of first 100 cases prior to the study of the biliary tree with radiopaque oil, and of the last 100 cases where this study has been made. Advantages shown by the use of radiopaque oil in the determination of proper time for removal of the drainage tube, and reasons for its continued use.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

4:05 to 4:30

REGIONAL ILEITIS

JOHN W. HOLLOWAY, M.D., *Cleveland.*

A brief historical survey of the literature of chronic inflammatory lesions of the gastro-intestinal tract up to the contribution of Crohn and associates (1932), who referred to the condition as terminal ileitis. Even should it not prove to be a definite clinical entity, it at least is striking because of its localization in the majority of instances. Largely a reiteration of Crohn's concepts and conclusions to which little has been added since his original article. Our own limited experience is principally confirmatory but has aroused our interest particularly in the problems of diagnosis and treatment in the acute manifestations of the condition.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

4:30 to 4:55

HEMATURIA AND ITS SIGNIFICANCE FOLLOWING AUTOMOBILE ACCIDENTS

LEO P. DOLAN, M.D., *Toledo.*

Because of increasing number of automobile accidents, more physicians are seeing cases of traumatic hematuria. With the use of newer methods and technique in diagnosis less infections should result. Emergency surgery in the face of severe shock can be made less necessary with modern technique. Review of newer conservative methods suggests all urethral instrumentation should, in most cases, be employed only after the use of intravenous urography, or not at all. Description of sterile safe technique of examining traumatic lesions of the urinary tract. If an intra-peritoneal rupture of the bladder exists in the presence of a sterile urine, no foreign infection will be introduced and supra pubic repair can be carried out without great danger of peritonitis. Likewise the incident of emergency nephrectomies can be reduced, and the ultimate possibility of the conservation of renal tissue is enhanced. Proper application of procedure necessitates standing orders to all hospital assistants not to employ the use of a catheter in any injury case until a doctor has seen the case.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

4:55 to 5:20

ACUTE TRAUMATIC SUBDURAL HEMATOMA

SAMUEL WOOD WEAVER, M.D., *Youngstown.*

Not many years ago, this entity was seldom diagnosed in the living person but was seen at autopsy following various types of brain trauma. Today it is a fairly common complication and should be recognized. Recognition or suspicion is not necessarily the problem for the neurosurgeon or the general surgeon but frequently the responsibility of the general practitioner. In view of the rather common occurrence of subdural hemorrhages which follow head injuries or most often a mere trivial bump on the head, it is important to have some knowledge of the symptoms and signs as well as a good history. The majority of subdural hematomas are not a classical picture but present a wide variety of atypical signs although there are some very impor ant signs and

symptoms to watch. Discussion of signs and symptoms and a few examples of the so-called "classical" and atypical types to illustrate points in differential diagnosis and when operation is indicated. Brief description of the subtemporal trephine operation or "decompression". Points to aid the surgeon in avoiding hemorrhage and controlling that which may arise.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

5:20 to 5:30

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON EYE, EAR, NOSE AND THROAT . . .

FRED W. DIXON, M.D., *Cleveland* ..... Chairman
RALPH E. BOICE, M.D., *Toledo* ..... Secretary

Thursday Morning, May 4

9:30 o'clock

Meeting Place—Silver Ballroom, Mezzanine Floor, Hotel Secor, (Opposite the Headquarters Hotel)

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10

PROBLEMS OF NUTRITION ENCOUNTERED BY THE OPHTHALMOLOGIST AND OTOLARYNGOLOGIST

W. H. EVANS, M.D., *Youngstown.*

A brief discussion of the pathological conditions that are found as a result of an avitaminosis will be followed by a more detailed consideration of the uses of vitamins in ophthalmology and otolaryngology. An attempt has been made to review the literature and quotations made from those articles which appear to have a direct bearing on ophthalmology or otolaryngology. Due to the marked advances in nutrition it is imperative that the physician of today and tomorrow, no matter what his field, should become more familiar with the experimental and clinical concepts as laid down by the biochemist, psychologist and internist of today.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

FACTS AND THEORIES OF NASAL DISEASE

RALPH J. FRACKELTON, M.D., *Lakewood.*

Summary of data affecting theories and therapeutic principles of diseases of the nose and accessory sinuses. (a) Generalities. Purpose of theory in explaining pathological and physiological processes. Deductions lead to the development of therapeutic principles. Theories often evolved from clinical observations solely; later supported or refuted by experimental evidence. Before the experimental evidence has been obtained the theory may have received great promotion by its enthusiasts. If the objective evidence does not support it, it is regrettable that such data does not receive as much prominence as the theory did. Each new theory offers a challenge to investigators

as such studies form the basis for the development of clinically useful therapeutic principles. (b) The acid-alkaline theory of nasal disease. Experimental data disappointing to the theory. (c) The nose as the portal of entry in poliomyelitis. (d) The nose and endocrinolgy. Atrophic rhinitis and estrogenic substance. (e) Nasal disease, primary optic atrophy, multiple sclerosis. (f) Relation of nasal reflex and asthmatic breathing. Histamine and cold reaction, etc.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

THE MUSCLE BALANCE IN ROUTINE REFRACTIONS

F. BRUCE FRALICK, M.D., *Ann Arbor, Mich.,*
Professor, Department of Ophthalmic Surgery, University of Michigan Medical School.

The determination of the extra-ocular muscle balance in routine refractions is very commonly omitted, only to be investigated if the patient should return complaining of dissatisfaction with his prescription. The twenty-five per cent or less of patients examined for glasses who consult the oculist should be entitled to a complete examination upon their first visit and necessary steps taken at that time to correct all abnormalities found. The discussion will entail a consideration of the insufficiencies, excesses, and the hyperphorias. It will emphasize the point that the status of the extra-ocular muscle balance as given by the phorometer readings should be considered as a whole rather than as to its component constitutents in order to better determine the type of muscle inbalance present. Examples will be used to illustrate the various groups of extra-ocular muscle inbalances and to point out the types of therapy which have been found most helpful in giving relief.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

THE DIFFERENTIAL DIAGNOSIS OF COUGH

GEORGE L. KING., M.D., *Alliance.*

An attempt will be made to show the importance of symptom of cough. A recent standard medical text states that 17 per cent of all patients coming to the family doctor have cough as their chief complaint. Cases of sinus infection admitted to the Molly Stark Sanatorium for the treatment of tuberculosis will be discussed as to their symptomatology, and representative cases will be demonstrated by means of the X-ray. This series consists of more than 50 non-tuberculosis patients admitted through erroneous diagnosis. Quick review of the mode of transmission of the infection from sinus to respiratory tract with a view to showing clinically what has been experimentally shown. Practical review of office cases showing some clinical results obtained will conclude the sinus part of the discussion. An effort will be made, also, to review the common causes of cough and to illustrate some of them with case reports.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

THE MANAGEMENT OF HYPERPHORIA

M. PAUL MOTTO, M.D., *Cleveland.*

The frequency of hyperphoria is cited. The etiology is discussed briefly. The various tests used in the diagnosis of hyperphoria are reviewed. The treatment is directed at the relief of the symptoms. The refractive error, the occupation, the symptoms, along with the other findings, should all be weighed before decision as to correct treatment can be decided upon. The conservative and radical treatment of hyperphoria are outlined. A few illustrative cases are given.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON OBSTETRICS AND GYNECOLOGY . . .

HOWARD P. TAYLOR, M.D., *Cleveland* ..... Chairman
R. C. DOAN, M.D., *Miamisburg* ..... Secretary

Wednesday Afternoon, May 3

3:00 o'clock

Meeting Place—Silver Ballroom, Mezzanine Floor, Hotel Secor, (Opposite the Headquarters Hotel)

3:00 to 3:15

Minutes. Business. Selection of Nominating Committee.

3:15 to 3:30

EXPLODED THEORIES OF OVULATION: THE VARIOUS NOTIONS ON WHEN OVULATION OCCURS AND THEIR BASES

RICHARD D. BRYANT, M.D., *Cincinnati.*

A review of discarded theories concerning the time of ovulation in humans, especially in relation to menstruation and coitus. Successive discoveries which disproved previous theories and culminated in our present beliefs, will be briefly outlined.

3:30 to 3:45

THE APPLICATION OF RECENT KNOWLEDGE TO THE MANAGEMENT OF STERILITY IN THE FEMALE

B. B. RUBENSTEIN, M.D., *Cleveland.*

Changes in the vaginal mucosa under the influence of esterone and progesterone will be described. Determination of the time of ovulation by means of the basal body temperature and the epithelial smears will be discussed. The results of this application in the treatment of more than 20 patients, sterile for over five years, will be presented.

3:45 to 4:00

THE APPLICATION OF RECENT KNOWLEDGE TO THE MANAGEMENT OF CONTROLLED CONCEPTION

T. T. ZUCK, M.D., *Cleveland.*

A review of the use of basal body temperature and related indicators of ovulation to the management of individuals who seek to regulate the control of conception for medical, religious or economic reasons, together with that group of persons who decide to make use of recent knowledge of the role of physical status of the parents as it modifies chances of producing vigorous offspring. Modifications of the temperature curve which parallel disturbances in the function of the ovary will be described. The use of the safe period in normally functioning women is now a matter of fact and a resumé of the cases followed will be presented.

4:00 to 4:15

THE USEFULNESS IN CLINICAL PRACTICE OF A KNOWLEDGE OF THE OVULATION DATE

J. C. PLACAK, M.D., *Cleveland.*

The danger of abortion and older methods of contraception in comparison to our knowledge of the ovulation period. A brief discussion of this simple

method which clarifies the religious and moral arguments against contraception, its value and application in relation to transmission of diseases. Specific instances where the ovulation date is of value. Its discussion in relation to tuberculosis, syphilis, cardiac diseases, psychiatry, cancer, etc. Discussion of child-bearing in excess of the mother's ability to withstand repeated pregnancies.

4:15 to 4:30

SUMMARY AND DISCUSSION

WM. H. WEIR, M.D., and ROBT. LEE FAULKNER, M.D., *Cleveland.*

4:30 to 5:20

GENERAL DISCUSSION OF ALL PAPERS

5:20 to 5:30

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON NERVOUS AND MENTAL DISEASES . . .

A. T. HOPWOOD, M.D., *Orient* ..... Chairman
RICHARD E. STOUT, M.D., *Cleveland* ..... Secretary

Thursday Morning, May 4

9:30 o'clock

Meeting Place—Private Dining Rooms 2, 3 and 4, Mezzanine Floor, Commodore Perry Hotel

9:30 to 9:45

Minutes. Business. Selection of Nominating Committee.

9:45 to 10:10

ALCOHOLIC PSYCHOSES

N. W. KAISER, M.D., *Toledo.*

A statistical study of the alcoholic psychoses admitted to the seven Ohio state hospitals for the civil insane over a period of 25 years. From 1912 to 1936 a total of 78,161 patients were admitted—of these 5,316 or 6.8 per cent were alcoholics. A considerable variation in the frequency of admissions occurs in different years or periods of years. The highest admission rate of 12.2 per cent was reached in 1917, the lowest rate approximately three per cent was reached in 1922. Male admissions of alcoholics are more than three times as frequent as female admissions. The maximum male admission rate in any individual hospital in any one year was 27.8 per cent, the lowest was 0.4 per cent. Graphic lantern slide charts illustrate the yearly admission rate of both sexes. The alcoholics are classified with reference to environment, age on admission and degrees of education. A comparison is made with some of the major psychoses such as dementia praecox, manic-depressive psychoses and the psycho-neurotic. Psychological factors, treatment and the prognosis of the alcoholic are discussed.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:10 to 10:35

MID-LINE CEREBELLAR TUMORS

HARRY E. LEFEVER, M.D., *Columbus.*

(1) Discussion of the anatomy and the physiological functions of the vermis of the cerebellum. (2) A consideration of the four types of tumors that most frequently occur in the vermis of the cerebellum, namely, megalo-blastoma, astrocytoma, ependymoma and hemangioblastoma. (The cellular characteristics of each tumor illustrated with lantern slides.) (3) The clinical signs and symptoms produced by tumors in this location and analysis of both the generalized and focal signs indicating tumor formation in this region. (4) The surgical consideration of tumors in this location.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

10:35 to 11:00

THE BULGARIAN BELLADONNA TREATMENT OF POST-ENCEPHALITIC PARKINSON'S SYNDROME

HOWARD D. FABING, M.D., *Cincinnati.*

About 10 years ago Ivan Raeff, a Bulgarian herbalist, began to employ a white wine extract of the root of the indigenous belladonna plant in the treatment of the post-encephalitic Parkinsonian syndrome. The European experience with this drug is reviewed, and its pharmacology is summarized. Therapeutic experience in 25 cases treated with this drug in Cincinnati is reported. Marked improvement was noted in 40 per cent of cases, slight improvement was noted in another 30 per cent, and no improvement was found in the remainder. The dosage of the drug varied widely from case to case, and toxic side-reactions were common. It is concluded that this drug is a better therapeutic agent in this disorder than the other drugs of the atropin series now in use.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:00 to 11:25

THE DEVELOPMENT OF CHILD PSYCHIATRY AS A NEURO-PSYCHIATRIC SPECIALTY

OSCAR B. MARKEY, M.D., *Cleveland.*

The development of dynamic psychiatry has inevitably stressed the main point that difficulties in adult life usually emerge from sub-clinical troubles in infancy and childhood. With the development of the child guidance approach, psychiatrists have explored all the areas which enter into personality formation and they have helped to reveal many basic influences which do not appear to be organic in origin. The presentation will attempt to bring out the point that children's psychiatry cannot grow except with a fundamental organic base, that a continuous evaluation of the organic factor is necessary even in the study and treatment of common disorders of the child's temperament. Even where the psychogenic factor seems so strong, an attempt will be made to show that it is frequently the total organism's way of making use of an organic difficulty for the purposes of working out a more comfortable pattern of living. Finally, some discussion will be offered on the training methods and opportunities for psychiatrists in this field.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:25 to 11:50

EARLY FORMS OF NEURO-SYPHILIS

JOSEPH L. FETTERMAN, M.D., *Cleveland.*

A study of pre-paretic and pre-tabetic types of neuro-syphilis. The irreparable mental changes of advanced paresis and the crippling complications of tabes reveal the need for the earlier recognition of these maladies. Treatment, to be effective, must be instituted in the earliest stages. This paper calls attention to the beginning signs and symptoms of neuro-syphilis. Case histories are given of patients who have had one convulsion, a slight personality change, symptoms of neurosis, which, on the basis of further study, especially spinal puncture, were found to be the early manifestations of neuro-syphilis.

The modern accepted treatment by pyro- and fever therapy is reviewed. The aim of this paper is to emphasize the dictum that "an early L. P. may save a late G. P."

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

11:50 to 12:00

Election of Officers.

Adjournment for Inspection of Exhibits.

SECTION ON PEDIATRICS . . .

LAWRENCE I. CLARK, M.D., *Toledo* ..... Chairman
W. B. TAGGART, M.D., *Dayton* ..... Secretary

Wednesday Afternoon, May 3

3:00 o'clock

Meeting Place—Private Dining Rooms 2, 3 and 4, Mezzanine Floor, Commodore Perry Hotel

3:00 to 3:15

Minutes. Business. Selection of Nominating Committee.

3:15 to 3:40

OBJECTIVE ASSESSMENT OF THE ALLERGIC CHILD

STANLEY COHEN, M.D., *Cleveland.* (By invitation.)

Active allergy in children produces changes in growth pattern. If other conditions which affect the growth pattern can be ruled out, the change in the growth pattern of the allergic child gives accurate information as to the type and severity of allergy and the approximate ages of activity. The changes produced by allergy, their method of recognition and method of recording will be discussed.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

3:40 to 4:05

DIAGNOSIS OF ACUTE SURGICAL ABDOMEN IN CHILDREN

A. W. CARLEY, M.D., *Dayton.*

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

4:05 to 4:30

CONGENITAL HEART DISEASE

FRANK C. CLIFFORD, M.D., *Toledo.*

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

4:30 to 4:55

THE PRESENT STATUS OF PERTUSSIS IMMUNIZATION

JAS. G. KRAMER, M.D., *Akron.*

The various methods utilized for immunization against pertussis will be described. Results reviewed and evaluated. A study of the immunizing effect

of Sauer's Vaccine will be presented and conclusions drawn. Methods of determining immunity to whooping cough will be reviewed. The question will be raised as to the value of mass immunization from a public health standpoint, as well as the individual protection to our own patients.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

4:55 to 5:20

ARTIFICIAL FEVER THERAPY IN INFANTS AND CHILDREN: METHOD, INDICATIONS AND RESULTS

WALTER HEYMANN, M.D., *Cleveland.*

Sixty-six patients between the ages of 19 months and 14 years given 2,800 single treatments for induction of artificial fever. Fever produced without any serious complication by intravenous injection of typhoid-paratyphoid vaccine and pyrifer. Courses of 3 or 4 weeks of daily treatments given without ill effects. Interruption of 4 or 5 months between courses overcame the resistance to these agents that developed during one course so that successive course and interval could be repeated as often as necessary. Methods, indications and results in treatment of the following: Twenty-three cases of chorea; rheumatic state in 11 children; six cases of syphilitic interstitial keratitis; and 11 children with syphilis of the central nervous system. Artificial fever therapy in cases of epilepsy, bronchial asthma, lipoid nephrosis and hereditary tremor was of no value.

General Discussion—10 minutes. (Each discussant limited to 3 minutes.)

5:20 to 5:30

Election of Officers.

Adjournment for Inspection of Exhibits.

PUBLIC HEALTH LUNCHEON . . .

SILVER BALLROOM TERRACE, MEZZANINE FLOOR, HOTEL SECOR

Under the auspices of the Section on Public Health and Preventive Medicine, a round-table luncheon will be held Wednesday, 12:30 P.M., May 3, on the Silver Ballroom Terrace, Mezzanine Floor, Hotel Secor. All members will be welcome at the luncheon and program which will follow. Tickets will cost $1.00 each, plus tax, and may be purchased at the time of the luncheon. The program arranged by Dr. Wm. Edward Blair, Lebanon, chairman, and Dr. J. J. Sutter, Wooster, secretary of the section, is as follows:

"Advising the Public", Carl A. Wilzbach, M.D., Cincinnati, Health Commissioner of the City of Cincinnati.

The Health Department has the unique opportunity of advising and interpreting the doctor and his services to the public and of educating the public concerning preventive measures and new advances for the protection, control and treatment of diseases and for the maintenance of good health. Of late years health education is growing in importance as one of the major functions of the health department and it is the instrument through which those who can pay are influenced to turn to their own physicians for advice on health and hygiene, as well as aid in time of illness. That public education is productive and a factor in reducing morbidity and mortality has been shown by the progress made in controlling tuberculosis and other diseases.

"Activities and Program of State Department of Health", R. H. Markwith, M.D., Columbus, State Director of Health.

A review of the present work of the State Department of Health and a discussion of possible future activities of the Department.

ESSAYISTS-DISCUSSANTS . . .

Essayists and discussants are requested to comply with Sections 5 and 7 of Chapter 3 of the By-Laws of the Ohio State Medical Association reading in part as follows:

"The papers and discussions in sections shall be limited to scientific subjects."

All papers read before this Association shall be its property and *immediately after being read shall be deposited with the secretary of the section,* if read before a section, or with the Executive Secretary, if read before a general session. No author shall cause a paper read before this Association to be published elsewhere as original, or until published in the official *Journal* of this Association."

Discussants should send typewritten copies of their remarks to *The Ohio State Medical Journal,* 1005 Hartman Theater Building, Columbus, in order that their discussions may be published in *The Journal* with the respective papers. Such material should be sent not later than two weeks after the Annual Meeting.

REGISTRATION . . .

In compliance with Chapter 1 of the By-Laws of the Ohio State Medical Association, only physicians who are members in good standing in the Association will be permitted to register and attend the various sessions of the Annual Meeting, except physicians who reside in other states and are members in good standing of their respective state medical associations. Medical students, interns and members of other scientific professions may register as guests and will be admitted to all sessions.

Admission to all sessions will be by badge only, which badge may be secured upon registering. Registration Headquarters will be open daily from 8:00 A.M. to 5:30 P.M., in the Crystal Room, adjoining the Main Lobby of the Commodore Perry Hotel, and the site of the Technical Exhibit.

WHEN making your plans to attend the Ninety-Third Annual Meeting at Toledo, remember that the First General Session begins at 10 o'clock, Wednesday morning, May 3. Guest speakers at this session are Dr. Anthony J. Lanza, New York, who will discuss "Silicosis—Present Status", and Dr. Herman O. Mosenthal, New York, whose subject is "The Treatment of Nephritis". Other speakers are Dr. Henry J. Gerstenberger, Cleveland, "The Vitamin Problem in Infants and Children", and Dr. Harry Goldblatt, Cleveland, "Experimental Observations on the Treatment of Hypertension". This should be a very interesting session. Plan to be in Toledo early enough to attend it.

TECHNICAL EXHIBITORS . . .

CRYSTAL ROOM, COMMODORE PERRY HOTEL, 8 A.M. to 7 P.M., DAILY

Exhibitor	Booth Number	Address
Arlington Chemical Company	No. 7	Yonkers, New York
Cameron's Surgical Specialty Co.	No. 25	Chicago, Illinois
Camp & Company, S. H.	No. 34	Jackson, Michigan
Coca-Cola Company	No. 1	Atlanta, Georgia
Davies, Rose & Company, Ltd.	No. 11	Boston, Mass.
Devereus Schools, Inc.	No. 31	Berwyn, Pa.
DeVilbiss Manufacturing Company	No. 9	Toledo, Ohio
General Electric X-Ray Corporation	No. 40	Chicago, Illinois
Gerber Products Company	No. 21	Fremont, Michigan
Heinz Company, H. J.	No. 36	Pittsburgh, Pa.
Holland-Rantos Company, Inc.	No. 37	New York City
Horlick's Malted Milk Corporation	No. '12	Racine, Wisconsin
Jones Metabolism Equipment Co.	No. 6	Chicago, Illinois
Lederle Laboratories	No. 29	New York City
Lepel High Frequency Lab., Inc.	No. 10	New York City
Liebel-Flarsheim Company	No. 26	Cincinnati, Ohio
Lilly & Company, Eli	No. 5	Indianapolis, Ind.
Lippincott Company, J. B.	No. 4	Philadelphia, Pa.
M & R Dietetic Laboratories, Inc.	No. 15	Columbus, Ohio
Mead Johnson & Company	No. 22, 23	Evansville, Ind.
Medical Protective Company (of Fort Wayne, Indiana)	No. 27	Wheaton, Illinois
Mellin's Food Company	No. 14	Boston, Mass.
Merck & Company	No. 28	Rahway, New Jersey
Merrell Company, Wm. S.	No. 24	Cincinnati, Ohio
Mosby Company, C. V.	No. 8	St. Louis, Mo.
Muller Laboratories, The	No. 17	Baltimore, Md.
Parke, Davis & Company	No. 38	Detroit, Mich.
Petrolagar Laboratories, Inc.	No. 16	Chicago, Illinois
Philip Morris & Company	No. 18	New York City
Rupp & Bowman Company	No. 32	Toledo, Ohio
S. M. A. Corporation	No. 2	Chicago, Illinois
Saunders Company, W. B.	No. 13	Philadelphia, Pa.
Scheer & Burke X-Ray Sales Company	No. 30	Cleveland, Ohio
Sklar Mfg. Company, J.	No. 33	Brooklyn, New York
U. S. Standard Products Co.	No. 3	Woodworth, Wis.
Vernor Company, James	No. 35	Detroit, Mich.
Wyeth & Bro., Inc., John	No. 19, 20	Philadelphia, Pa.
Zemmer Company	No. 39	Pittsburgh, Pa.

ANNUAL MEETING COMMITTEES . . .

STATE ASSOCIATION

Committee on Scientific Work

ALBERT F. KUHL, M.D., Dayton, *Chairman*

Claude B. Norris, M.D., Youngstown
M. M. Zinninger, M.D., Cincinnati
Stanley D. Giffen, M.D., Toledo
C. C. Sherburne, M.D., Columbus

TOLEDO COMMITTEES

A. A. BRINDLEY, M.D., *General Chairman*

Reception

A. L. STEINFELD, M.D., *Chairman*

Benj. H. Carroll, M.D.
Thomas M. Crinnion, M.D.
Ralph P. Daniells, M.D.
John R. Davis, M.D.
E. W. Doherty, M.D.
Fred M. Douglass, M.D.
Will Gardiner, M.D.
E. B. Gillette, M.D.
Thos. F. Heatley, M.D.
Luette H. Kuhlman, M.D.
Charles Lukens, M.D.
A. H. Schade, M.D.
C. D. Selby, M.D.
John L. Stifel, M.D.
Lewis F. Smead, M.D.
C. W. Waggoner, M.D.

Halls and Meeting Places

L. D. MILLER, M.D., *Chairman*

M. W. Diethelm, M.D.
Robert H. Elrod, M.D.
T. C. Kiess, M.D.
J. A. Magoun, M.D.
B. G. Shaffer, M.D.

Annual Banquet

LEO P. DOLAN, M.D., *Chairman*

Karl D. Figley, M.D.
Wm. A. Neill, M.D.
S. H. Patterson, M.D.
Harry M. Scott, M.D.

Projection Apparatus

C. E. HUFFORD, M.D., *Chairman*

M. E. Goodrich, M.D.
Dalton Kahn, M.D.

Hobby Exhibit

GEO. P. HOHLY, M.D., *Chairman*

John T. Murphy, M.D.
Thomas L. Ramsey, M.D.

Entertainment for Women Guests

MRS. CARLL S. MUNDY, *Chairman*

Mrs. A. A. Brindley
Mrs. Thomas H. Brown
Mrs. John R. Davis
Mrs. Karl D. Figley
Mrs. C. E. Hufford
Mrs. Louis A. Levison
Mrs. Edward J. McCormick
Mrs. F. B. McNierney
Mrs. L. D. Miller
Mrs. Richard A. Mills
Mrs. Glenn H. Reams

Have You a Hobby? If So Plan to Place a Display at the 1939 Annual Meeting; Send Blank to Dr. Hohly, Toledo

THE Hobby Show at recent Annual Meetings of the Ohio State Medical Association has been so successful that plans have been made to continue these "extra-curricular" activities at the Toledo meeting, May 3 and 4. A suite of rooms on the Arcade Floor, Commodore Perry Hotel, has been set aside for the display.

While arts and crafts always seem to top the entry list, there have been numerous other items of exceptional interest. Last year, the hobbyists displayed gun stocks, engine models, ship models, inlaid tables, glassware, paintings, etchings and photographs. The number of items displayed has increased each year and it is hoped that this year will bring out an even more varied and complete assortment.

If you have a hobby, plan to exhibit it before your fellow physicians from all over the state. You may be surprised how many of them are really interested in this sort of activity.

The entry blank provided below should be filled out and mailed to the committee as soon as possible. It must have a reasonable length of time to plan and arrange for the best possible display of individual exhibits.

Dr. Paul Hohly, Chairman
Committee on Hobby Exhibits
Edison Building
Toledo, Ohio.

Please enter the following for exhibition at 1939 Annual Meeting, May 3 and 4:

Title and description .....

.....

I should have..... sq. ft. wall space..... floor space.....(check which).

Material will be best displayed on the wall..... table.....shelf ..... show-

case.....

Check.

Signed ..... M.D.

Address .....

Specialty, if any .....

Try to have all exhibits delivered to the committee on Arcade Floor of the Commodore Perry Hotel by Tuesday, May 2. The committee reserves full authority to accept or reject any exhibit. Space will be assigned as the blanks are received.

Fine Program of Entertainment Planned for Women Guests at Annual Meeting; Other Special Events, Luncheons, Etc.

WIVES and daughters of members of the Ohio State Medical Association and other women guests, attending the 93rd Annual Meeting of the Association at Toledo, May 3 and 4, will find a royal welcome awaiting them and a fine program of entertainment arranged for them.

A program of social events for women guests is being arranged by a Toledo committee composed of the following wives of Toledo physicians: Mrs. Carll S. Mundy, chairman, Mrs. A. A. Brindley, Mrs. Thomas H. Brown, Mrs. Richard A. Mills, Mrs. John R. Davis, Mrs. L. D. Miller, Mrs. Edward J. McCormick, Mrs. C. E. Hufford, Mrs. Karl D. Figley, Mrs. Glenn H. Reams, Mrs. F. B. McNierney, Mrs. Louis A. Levison.

Special arrangements are being made to register women guests and to provide them with information regarding the social events being arranged.

The preliminary program for the women is as follows:

Wednesday, May 3

12:00 Noon—Welcome Luncheon, Commodore Perry Hotel.

3:00 P.M.—Cathedral Tour and Musicale.

7:00 P.M.—Bridge Dinner and Entertainment, Toledo Woman's Club.

Thursday, May 4

8:30 A.M.—Golf at any club in Toledo District.

2:00 P.M.—Luncheon and conducted tour of Art Museum, followed by concert in Peristyle of the Museum.

* * *

Nervous and Mental Disease Luncheon

Officers of the Section on Nervous and Mental Diseases have arranged a luncheon for members interested in that specialty, immediately following the Section Meeting, on Thursday morning, May 4. The luncheon will be held at Hotel Secor. The price of the luncheon will be $1.00, plus tax. Arrangements are in charge of Dr. A. T. Hopwood, Orient, chairman of the section. Tickets will be available at the luncheon.

* * *

Luncheon for Allergists

All physicians interested are invited to attend the Allergists' Round-Table and Subscription Luncheon on Wednesday, May 3, at Hotel Secor. The topic for discussion will be "Chronic Non-Seasonal Vasomotor Rhinitis". Arrangements are being made by Dr. Karl D. Figley, Toledo. This is in keeping with the plan which proved so successful last year when the Ohio Valley Allergy Society and the Cleveland Society of Allergy inaugurated these meetings at the 92nd Annual Meeting in Columbus.

* * *

EENT Luncheon, Thursday, May 4

A special luncheon for those attending the session of the Section on Eye, Ear, Nose and Throat has been arranged by the section officers, Dr. Fred W. Dixon, Cleveland, chairman, and Dr. R. E. Boice, Toledo, secretary. The luncheon will be held on the Ballroom Terrace, Secor Hotel, Thursday, May 4, 12:15 P.M.—immediately following the section session in the Secor Ballroom. The all-inclusive cost of the luncheon will be $1.00. Eye, ear, nose and throat specialists throughout the state will be circularized by the officers regarding the luncheon and requested to make reservations by mail. Also, they will be asked to submit questions in writing on the six short papers which will be presented immediately following the luncheon. The luncheon program, which will be concluded in time for all to attend the Thursday Afternoon General Session, starting at 1:30

RADIO BROADCASTS DURING ANNUAL MEETING AT TOLEDO ARRANGED

Each of Toledo's radio stations, WSPD and WTOL, has been kind enough to set aside two 15-minute periods each day of the 93rd Annual Meeting of the Ohio State Medical Association in that city, May 3 and 4, for broadcasts by officials of the State Association and selected speakers from the Annual Meeting program. A program of eight talks is being arranged. Some of the addresses will be on medical and health subjects. the others on social and economic questions bearing on medical care and the practice of medicine. This innovation will bring Ohio's radio audience into close touch with this annual assembly of the medical profession of the state.

P.M. in the Main Ballroom, Commodore Perry Hotel, follows:

"Indications for Cataract Extraction"—Dr. Donald J. Lyle, Cincinnati.
"Postoperative Treatment of Cataract Extraction in the First Twenty-Four Hours"—Dr. A. B. Brunner, Cleveland.
"Treatment of Cancer in Otolaryngology"—Dr. Edward King, Cincinnati.
"New Drugs in Otolaryngology"—Dr. E. G. Galbraith, Toledo.
"New Drugs in Ophthalmology"—Dr. Albert D. Frost, Columbus.
"Petrositis"—Indications for Operation, and Comparison of Methods of Approach—Dr. Justin M. Waugh, Cleveland.

There will be a brief discussion period following the scheduled discussions.

* * *

Physiotherapy Meeting, May 3 and 4

For the first time, the Ohio Section of the American Physiotherapy Association will hold its annual meeting at the time and place of the Annual Meeting of the Ohio State Medical Association. This arrangement was agreed to by The Council of the State Medical Association following a request from this allied organization, many members of which believe that the programs of both organizations will be of mutual interest to members of both groups.

The following tentative program has been arranged for the physiotherapy meeting which will be held at the Secor Hotel:

Wednesday, May 3

9:00 A.M.—Registration. (Badges issued by both organizations will be recognized for admission to either meeting).
10:00 A.M.—Welcome from local chairman and address of President.
11:00 A.M.—Address. (Speaker to be selected).
12:30 P.M.—Luncheon.
2:00 P.M.—"Physiotherapy in Arthritis", Dr. Walter J. Zeiter, Cleveland.
3:00 P.M.—Address by orthopedic surgeon.
4:00 P.M.—Address. (Speaker to be selected).
6:00 P.M.—Formal dinner, Hotel Secor. Address: Miss Helen Kaiser, Cleveland, president, American Physiotherapy Association.
8:00 P.M.—Second General Session, Ohio State Medical Association, Commodore Perry Hotel.

Thursday, May 4

9:00 A.M.—Business meeting and election of officers.
10:30 A.M.—Address by neurologist. (Speaker to be selected).
11:00 A.M.—Motion pictures, "Physiotherapy of Crippled Children".
12:00 Noon—Luncheon, Toledo Art Museum.
2:00 P.M.—Clinic at Convalescent Home under the direction of Dr. B. G. Chollett, Dr. A. L. Bershon and staff.
7:30 P.M.—Annual Banquet, Ohio State Medical Association, Commodore Perry Hotel.

* * *

Ohio Society of Pathologists Meeting

On Wednesday, May 3, the Ohio Society of Pathologists will hold a subscription luncheon and a round-table discussion at the Fort Meigs Hotel, with Dr. R. S. Fidler of Columbus presiding. The discussion will center around the cases presented by the Slide Exchange Committee since the last meeting. This will be followed by the annual election of officers. Any physician attending the meeting of the Ohio State Medical Association is welcome to this luncheon and discussion.

Golfers Attention! 19th Annual Tournament To Be Held Tuesday, May 2, Sylvania Country Club, Toledo

OHIO State Medical Golfers Association will hold its 19th Annual Tournament at the Sylvania Country Club, Toledo, Ohio, Tuesday, May 2, 1939, the day preceding the 1939 Annual Meeting of the Ohio State Medical Association in Toledo. The Toledo Committee is most anxious for a record attendance at this meeting. All members and their friends—male only—are invited to attend.

The Sylvania Country Club located about eight and one-half miles from the center of the city, straight west on Monroe Street is one of the finest and the most interesting golf layouts in this district. In topography it very greatly resembles many of the ancient Scottish courses. The committee feels that it will be not only a real treat but also a real test of golf ability.

Many prizes, well worth striving for, will be provided and the gross and handicap scoring systems give both the expert and the dub an equal break. This year the prize play will be limited to 27 holes—18 holes in the morning and 9 holes in the afternoon. The entire day, including golf, luncheon and annual dinner will cost but $6.00.

Arrangements have been made with the Sylvania Club to permit any member of the Association, who had entered the tournament, the privilege of the course without cost on Monday, May 1. This will give all a practice round before handicap play starts.

All active members of the Association will receive tournament blanks. These must be returned to the Secretary, George W. Cooley, 1420 Monroe St., Toledo, Ohio, by April 24.

Tournament play may be started as early as 6:00 A.M., although a start as late as 1:00 P.M. will allow ample time to finish 27 holes. The dinner will be at 7:00 P.M. The OSMGA is arranging a real party and several new entertainments are being planned. Don't forget the day—Tuesday, May 2. Don't forget the place—Sylvania Country Club, Toledo, Ohio.

The committee for this year is composed of the following: President, Dr. J. F. Wright, Toledo, Dr. F. T. Gallagher, Cleveland, Dr. E. C. Yingling, Lima, Dr. D. C. Brennan, Akron, Dr. H. H. Dorr, Columbus, Dr. Valloyd Adair, Lorain, and Secretary-Treasurer, Mr. George W. Cooley.

Seven Distinguished Guest Speakers Will Address General Sessions at Annual Meeting at Toledo

SEVEN distinguished out-of-state guest speakers will address the general sessions at the Ninety-Third Annual Meeting of the Ohio State Medical Association, to be held at the Commodore Perry Hotel, Toledo, Wednesday and Thursday, May 3 and 4. Invited by the Committee on Scientific Work because of outstanding work in their respective fields, these men have appeared before many medical societies throughout the country. Their addresses should be of practical value to all those who attend the meeting. A short biographical sketch of each of the guest speakers follows:

* * *

Dr. Anthony J. Lanza, New York, N. Y., assistant medical director of the Metropolitan Life Insurance Company, will speak on "Silicosis—Present Status", at the First General Session, Wednesday morning, May 3, from 10:30 to 11:15 o'clock.

The author of various reports, articles and monographs on industrial hygiene, especially silicosis, Dr. Lanza graduated at George Washington University Medical School in 1906. He then joined the staff of the U. S. Public Health Service, and from 1914 to 1919, was chief surgeon of the U. S. Bureau of Mines. Dr. Lanza was medical director of the Hydraulic Steel Company in 1920-21. From 1921 to 1924 he was advisor in industrial hygiene to the Commonwealth Government of Australia, on assignment from the Rockefeller Foundation. For the next two years Dr. Lanza was executive officer of the National Health Council, and in 1926 assumed his present post. He is a member of the Medical Society of the State of New York; Fellow of the American Medical Association; member of the American Public Health Association, Association of Industrial Physicians and Surgeons and the National Tuberculosis Association.

* * *

"The Treatment of Nephritis" will be discussed by Dr. Herman O. Mosenthal, New York, N. Y., at the First General Session, Wednesday morning, May 3, from 11:45 to 12:30 o'clock.

Dr. Mosenthal graduated at the Columbia University College of Physicians and Surgeons in 1903. He is clinical professor of medicine at the New York Post-Graduate Medical School of Columbia University, attending physician at New York Post-Graduate Hospital and visiting physician at Sea View Hospital, New York. Dr. Mosenthal is a member of the Medical Society of the State of New York; Fellow of the American Medical Association; member of the New York Academy of Medicine, Association of American Physicians, American College of Physicians and the American Society for the Advancement of Clinical Investigation.

* * *

Dr. Elliott C. Cutler, Boston, Mass., surgeon-in-chief, Peter Bent Brigham Hospital since 1932, will speak on "Preoperative and Postoperative Care" at the Second General Session, Wednesday evening, May 3, from 8 to 9 o'clock.

A graduate of Harvard University Medical School in 1913, Dr. Cutler has been Moseley professor of surgery at that institution since 1932. He was awarded an honorary doctorate by the University of Strasbourg in 1938. Dr. Cutler was chairman of the department of surgery and director of the Laboratory of Surgical Research at Harvard from 1921 to 1924. He was professor of surgery at Western Reserve University School of Medicine and chief surgeon at Lakeside Hospital, Cleveland, from 1924 to 1932. Dr. Cutler is a member of the Massachusetts Medical Society; Fellow of the American Medical Association; Fellow of the American College of Surgeons; member of Sigma Xi, American Surgical Association, American Society for Clinical Investigation, International Society of Surgery, American Association for Thoracic Surgery and many other scientific and surgical societies.

* * *

At the Second General Session, Wednesday evening, May 3, from 9 to 10 o'clock, Bradley M. Patten, Ph.D., Ann Arbor, Mich., professor of anatomy and director of the department of anatomy, University of Michigan Medical School, will present a motion picture demonstration and address on "Micro-Cinematographic and Electrocardiographic Study of the First Heart Beats and the Beginning of the Circulation in Living Embryos".

Dr. Patten graduated at Dartmouth College in 1911, and received his Ph.D. at Harvard University in 1914. He was assistant in zoology at Harvard, 1912-14; instructor in histology and embryology, Western Reserve University School of Medicine, 1914-18; assistant professor, 1918-21, associate professor, 1921-1934; assistant director

for the medical sciences, Rockefeller Foundation, 1934-1936. Dr. Patten is a member of the American Association for the Advancement of Science; Ohio Academy of Science (vice-president, chairman, medical science section, 1923); member of the American Society of Zoology; American Association of Anatomists (second vice-president, 1934-1936).

* * *

"Important Features in the Treatment of Fractures" is the subject to be discussed by **Dr. Allen F. Voshell**, Baltimore, Md., professor of orthopedic surgery, University of Maryland Medical School, at the Third General Session, Thursday afternoon, May 4, from 2 until 2:45 o'clock.

Dr. Voshell has been professor of orthopedic surgery at the University of Maryland School of Medicine and chief of the orthopedic service at the University of Maryland and Baltimore City Hospitals since 1931. He graduated at Johns Hopkins University School of Medicine in 1919, and was on the orthopedic staff at Johns Hopkins Hospital, 1920-1921. Dr. Voshell was instructor in orthopedic surgery at the University of Virginia, 1921-1923; assistant professor, 1923-1926, associate professor, 1926-1931, and chief of the orthopedic service, 1921-1931. He is a member of the Medical and Chirurgical Faculty of Maryland; Fellow of the American Medical Association, American College of Surgeons and the American Academy of Orthopedic Surgeons; member of the Johns Hopkins Surgical Society, American Orthopedic Association, certified by the American Board of Orthopedic Surgery and a member and past-president of the Baltimore Orthopedic Club.

* * *

Dr. Elmer L. Sevringhaus, Madison, Wisconsin, professor of medicine, University of Wisconsin Medical School, will speak on "Pituitary Therapy", at the Third General Session, Thursday afternoon, May 4, from 3:15 to 4 o'clock.

Dr. Sevringhaus has been on the staff of the University of Wisconsin Medical School since his graduation from Harvard University Medical School in 1921. He was assistant professor of Physiological Chemistry, 1921-25, associate professor, 1925-27, associate professor of medicine, 1929-37. Dr. Sevringhaus has been associate physician at Wisconsin General Hospital since 1927, and previously was assistant physician for three years. He is a member of the Medical Society of Wisconsin; Fellow of the American Medical Association; member of the Central Society for Clinical Research, American Society for Clinical Investigation; American Society of Biological Chemists and the Association for Study of Internal Secretion.

RESERVATIONS FOR ROUND-TABLE CONFERENCES MUST BE MADE IN ADVANCE

An innovation at the 93rd Annual Meeting, Toledo, May 3 and 4, will be the series of Round-Table Conferences, scheduled for Wednesday afternoon, May 3, from 1:30 to 3:00 o'clock. (See program, this issue, for schedule of conferences).

Within a few days, each member will receive a pamphlet regarding the Annual Meeting, part of which will be a card on which he may make a reservation for one of the Round-Table Conferences. This card should be filled out according to instructions and mailed to the Headquarters Office where reservations for the conferences will be made in the order requests are received.

Attendance at each conference will be limited and only those making a reservation and holding an admission card will be admitted. Admission cards will be available at the Registration Headquarters at the Toledo meeting for those who make a reservation in advance of the meeting.

At the Third General Session, Thursday afternoon, May 4, from 4:30 to 5:15 o'clock, **Dr. W. W. Herrick**, New York, will discuss "Medical Complications of Pregnancy and Puerperium".

An internist who has devoted considerable time to the study of toxemias of pregnancy, Dr. Herrick has written innumerable papers on the subject. He graduated at Yale University School of Medicine in 1905, and is professor of clinical medicine at Columbia University College of Physicians and Surgeons. Dr. Herrick is attending physican at Presbyterian Hospital and Sloane Hospital for Women and consulting physician at Woman's Hospital, Beekman Street Hospital, New York Infirmary for Women and Children, Babies' Hospital, New York City, and many other hospitals in the vicinity of New York. He is a member of the New York Academy of Medicine, Medical Society of the State of New York; Fellow of the American Medical Association and the American College of Physicians; member of the American Association of Physicians and a trustee of Trudeau Sanatorium, Trudeau, N. Y.

Last Call For Hotel Reservations For 1939 Annual Meeting of State Association, Toledo, May 3 and 4

DON'T delay further in making your hotel reservations for the Ninety-Third Annual Meeting of the Ohio State Medical Association, which will be held at Toledo, Wednesday and Thursday, May 3 and 4.

Sessions of the House of Delegates and most of the scientific meetings will be held at the Commodore Perry Hotel, which has been designated as the headquarters hotel. The round-table conferences, Technical Exhibit and Registration Headquarters also will be located there. Two section meetings and group luncheons will be held at the Hotel Secor, located directly across from the Commodore Perry Hotel.

Look over the appended list of Toledo hotels and their room rates and send **in the reservation blank immediately to the manager of the hotel you select.** By so doing you will receive the type of accommodations you desire.

NAME AND LOCATION	No. of Rooms	Single	Double	Double Twin Beds	Suites
COMMODORE PERRY Jefferson Ave. and Superior St.	500	$3.00–5.50	$4.50–7.00	$5.00–8.00	$10.00 and 14.00
SECOR Jefferson Ave. and Superior St.	250	$2.00—4.00	$3.50 and up	$4.50 and up	$10.00 and up
FORT MEIGS 222 St. Clair St.	250	$2.00–3.00	$3.00–4.00	$4.50–5.00	$8.00 and up
WALDORF Summit St. & Madison	500	$2.00–2.50	$3.50–4.00	$4.00–4.50	$8.00 and up
WILLARD St. Clair St. and Adams	125	$2.00–3.50	$3.50–5.00	$4.00–5.50	
MELROSE Jefferson Ave. and Superior St.	80	$1.50–2.00	$2.50–3.00	$3.00–3.50	
LORRAINE Jefferson Ave. & 12th St.	150	$2.00–3.00	$3.00–3.50	$3.50–4.00	$5.00 and 7.00
ARGONNE 321 Twelfth St.	100	$1.50 and up	$2.50 and up		
				Suites	
HILLCREST Madison Ave. & 16th St.	600	$2.50 and up	$3.50 and up	$3.00 sgl. $4.00 sgl.	$5.00 dbl. $6.00 dbl.

HOTEL RESERVATION BLANK

Mail this coupon to hotel selected

Manager ..... Hotel, Toledo, Ohio.

You are requested to reserve the following accommodations during the period of the Annual Meeting of the Ohio State Medical Association, May 3-4, 1939, or for such other period as may be indicated herein.

☐ Single Room with bath ☐ Double Room with bath Price: .....

☐ Twin Bed Room with bath ☐ Suite

Arriving May ..... at ..... A. M. ..... P.M.

PLEASE VERIFY MY RESERVATION.

Name .....

Address .....

.....

Annual Report of the Committee on Education

THE Committee on Education is able to report definite progress during the past year. Assisted by the Sub-Committee on Regional Postgraduate Lectures, the Committee on Education has been able to establish a concrete program of postgraduate education for the membership, generally. This has been an activity long overdue in Ohio. Now, however, a real start has been made. Courses have been organized in five regions in the state serving the Northwestern, North Central, Southwestern, South Central, and Southeastern portions. These regions covered a total of 77 counties and offered postgraduate education opportunities to approximately 3,265 members of the Association. Regional centers were established at Findlay-Defiance, Chillicothe, Mansfield, Zanesville, and Dayton-Springfield. An effort was made to locate these centers so that a great majority of physicians in the respective regions would not be more than 50 miles from any given center. The Northwestern and extreme Southwestern portions of the state were intentionally avoided, as in those sections rather extensive postgraduate educational activities are now being carried on through local medical societies and it seemed to the committee unnecessary to duplicate those excellent courses.

ATTENDANCE WAS GOOD

In general, the attendance at the five regional courses has been gratifying. The committee feels that the percentage of physicians attending in most of the regions has been all that could be expected.

Following are statistics on the five regional sessions, together with a list of the subjects presented:

Northwestern Region—Findlay-Defiance, October 21; November 4, 18; December 2, 16; January 6, 20; and February 3. Total attendance—978; individual physicians attending—331.

South Central Region—Chillicothe, February 3, 17; March 3, 17, 31; April 14, 28; and May 19. Total attendance—1,122; individual physicians attending—301.

North Central Region—Mansfield, September 7, 21; October 5, 19; November 2, 16, 30; and December 15. Total attendance—1,069; individual physicians attending—292.

Southeastern Region—Zanesville, September 8, 22; October 6, 20; November 3, 17; December 1, 15. Total attendance—584; individual physicians attending—190.

Southwestern Region—Dayton-Springfield, September 7, 21; October 5, 19; November 2, 16, 30; and December 14. Total attendance—790; individual physicians attending—338.

Subjects presented—Anatomy and Physiology of the Heart; Causes of Heart Disease; General Problem of Cardiac Failure; Rheumatic Heart Disease; Intestinal Obstruction; Infections of the Urinary Tract; Prenatal and Postnatal Care; Management of Pregnancy; Diagnosis and Treatment of Early Syphilis; Common Lesions of the Cervix, Differential Diagnosis, Preventive Measures and Treatment; Scarlet Fever; Pneumonia; Clinical Aspects of Tuberculosis in Infancy and Childhood; Chronic Arthritis—Medical Aspects; Chronic Arthritis—Orthopedic Aspects; Principles of Treatment of Diabetes; Common Psychoses; Cancer of the Breast; Fungous and Pyogenic Infections of the Skin; Arteriosclerosis; Prophylaxis and Treatment of More Common Contagious Diseases; Angina Pectoris and Coronary Thrombosis.

THOSE WHO LECTURED

Lecturers—Physicians who participated in regional meetings as lecturers are: Doctors William H. Bunn, Youngstown; Roy W. Scott, Cleveland; Leslie L. Bigelow, Columbus; Parke G. Smith, Cincinnati; Loyal E. Leavenworth, Canton; Harold N. Cole, Cleveland; William H. Weir, Cleveland; James G. Kramer, Akron; Julien E. Benjamin, Cincinnati; Waldo E. Nelson, Cincinnati; A. B. Brower, Dayton; William R. Hochwalt, Dayton; Henry J. John, Cleveland; Louis J. Karnosh, Cleveland; John W. Means, Columbus; Claude B. Norris, Youngstown; Robert E. Barney, Cleveland; M. A. Blankenhorn, Cincinnati; Cecil Striker, Cincinnati; John F. Beachler, Piqua; James B. Nelson, Youngstown; Edward A. Wagner, Cincinnati; George T. Harding, Columbus; Edward J. McCormick, Toledo; Thomas P. Shupe, Cleveland; Frank C. Clifford, Toledo; Howard J. Parkhurst, Toledo; H. B. Weiss, Cincinnati; Joseph A. Freiberg, Cincinnati; Clyde L. Cummer, Cleveland; Gerald S. Shibley, Cleveland; Thomas P. Sharkey, Dayton; Louis Feid, Jr., Cincinnati; Edwin J. Stedem, Columbus; Robert A. Lyon, Cincinnati; J. F. Bateman, Columbus; James M. Pierce, Cincinnati; John S. Lewis, Jr., Youngstown; George I. Nelson, Columbus; Charles J. Shepard, Columbus; Russell L. Haden, Cleveland; J. I. Kendrick, Cleveland; Harold Feil, Cleveland; James R. Driver, Cleveland; C. C. Sherburne, Coumbus; S. H. Ashmun, Dayton; H. J. Gerstenberger, Cleveland; Philip E. Piker, Cincinnati; R. S. Dinsmore, Cleveland; Theodore Miller, Cleveland; Wm. J. Engel, Cleveland; E. W. Netherton, Cleveland; Elmer R. Arn, Dayton; Philip J. Reel, Columbus; John E. Rauschkolb, Cleveland; C. D. Christie, Cleveland; W. B. Mor-

rison, Columbus; Marion D. Douglass, Cleveland; Carl R. Steinke, Akron; John A. Toomey, Cleveland; J. Victor Greenebaum, Cincinnati; Floyd S. Mowry, Cleveland; G. P. McKim, Cincinnati; Clifford J. Straehley, Cincinnati; Louis A. Levison, Toledo; Walter G. Stern, Cleveland.

Cost of program—The entire cost of the five regional meetings was borne by the State Association, there being no registration fee. The total cost, including rental of halls, speakers' traveling expenses, printing and publicity, and necessary administrative costs was approximately $2,783.11. Such a low cost would not have been possible if all of the lecturers had not donated their services. We feel that we voice the sentiment of the entire membership of the Association when we express our sincere gratitude to them. Many of the speakers traveled long distances, in some instances across the state, and often at the loss of a day or more from their practice.

FALL SERIES PLANNED

The Committee on Education and the Sub-Committee on Regional Postgraduate Lectures realize that the first year's setup has not been perfect in all respects. Mistakes are bound to occur in initial activities of this character. However, your committees are in the process of learning—learning how to conduct these courses, what subjects should be presented, what subjects are popular with the membership, and what are the characteristics of a successful lecturer. We hope that our experiences of the past year will result in an even better selection of subjects and lecturers for the second year's course, which we intend to open in the five regions simultaneously this coming Fall. In general, your committees, and we believe a great majority of members who attended the courses, are well satisfied with the experiences of the first year's course and we feel that the State Association has offered, and will continue to offer its members, educational benefits which many of the members could not have obtained without traveling to medical centers in this and other states and without the expenditure of a considerable sum of money.

The committees have been greatly aided by members of the Association, aside from the personnel of the committees, with respect to advice concerning subjects and speakers. Similar suggestions and constructive criticisms are solicited from the membership at large, especially those who attended the courses of the past year. Announcements concerning the second year's course this Fall will be carried in *The Journal* after the committees have met and have formulated the next year's program. Members who may wish to offer suggestions regarding subjects and speakers should send in their comments and recommendations to the State Headquarters Office at the earliest possible time so that their suggestions may be given due consideration by the committees.

SPEAKERS BUREAU OPERATING

The Sub-Committee on Speakers Bureau was well organized at the time of our last Annual Report. Since then, the Speakers Bureau has been operating efficiently. During the past year the Speakers Bureau has assisted 12 or 15 county societies and has aided a number of the district societies in formulating district meeting programs. Although the services of the Speakers Bureau have not been in widespread demand, the Bureau, in our opinion, is a necessary adjunct of the State Association because it serves somewhat as an emergency service for the special benefit of those county medical societies which may find it somewhat difficult to obtain speakers for local meetings. The fact that it has been in a position to serve some 12 or 15 county medical societies during the year proves its value and shows that it should be continued as a permanent part of the State Association setup. The Committee on Education and the Sub-Committee on Speakers Bureau hope that county society secretaries and program committees needing assistance in formulating programs will call upon the Speakers Bureau even more frequently during the coming year. Expenses of the Bureau have been practically negligible, as most of the speakers furnished have given their services gratis.

DISTRICT MEETING PROGRAMS

During the past year the Sub-Committee on District Meetings prepared and published a very effective pamphlet embodying advice and suggestions for those conducting district meetings. Many of the suggestions should be of equal value to those charged with the responsibility of conducting any type of medical meeting. Copies of this booklet may be obtained from the State Headquarters Office. The Committee on Education and the Sub-Committee on District Meetings believe that there need be no conflict between the usual district meetings and the regional postgraduate lectures. The district meetings usually are one-day or one-half day sessions at which a program on different subjects is presented. The postgraduate lectures are different in scope and purpose; continuing over a period of several months at two-week intervals at which a program of graded subjects is presented. It has been suggested that perhaps the district meetings might be devoted to round-table conferences on some of the outstanding social, economic, and governmental questions of vital concern to the medical profession, with perhaps a little less emphasis on the scientific phases of medicine, which phases, we believe, are being well covered in the regional lectures. Of course, the district society officers have complete discretion and authority in such

matters. This suggestion merely is passed on to them for their consideration.

NEED PERSONNEL AND FUNDS

The Sub-Committee on Public Health Education has been unable to accomplish some of its goals during the past year because of the lack of adequate personnel at the State Headquarters Office and sufficient finances to put some of its anticipated activities into effect. This committee hopes that the proposed expansion program of the State Association will be approved by the House of Delegates at the Toledo meeting in May, so that some of the proposals under consideration by the Sub-Committee on Public Health Education may be carried out. We feel that there is urgent need for greater activity and interest on the part of the medical profession in the field of public health education and that the State Association must take the lead. The Sub-Committee on Public Health Education is willing and anxious to assume leadership as soon as the proper machinery can be established. Activities on a minor scale have been carried out by the Sub-Committee, but the surface merely has been scratched.

In conclusion, the Committee on Education wishes to emphasize that the educational activities of organized medicine must be maintained in as active a way as possible. Medical organization is obligated to its members to provide them with educational opportunities. At the present time it is quite natural that many physicians are devoting more thought than ever before to the social and economic problems affecting the practice of medicine. This is as it should be. Nevertheless, the scientific and educational phases of the practice of medicine and of the program of activities of the State Association must not be submerged. Physicians, collectively and individually, constantly must strive to become better physicians and endeavor to render more efficient services to the public. Better services and education go hand in hand. Some of the social and economic problems referred to will disappear when the medical profession is able to provide the people with an even higher standard of medical care. Self improvement on the part of all physicians will result in medical progress and maintain public confidence in scientific medicine. To give the members of the Association such opportunities has been the real purpose behind all of the activities of the Committee on Education and its sub-committees.

CLYDE L. CUMMER, M.D., *Cleveland, Chmn.*
WM. KELLEY HALE, M.D., *Wilmington,*
RUSSEL G. MEANS, M.D., *Columbus,*
HARRY S. NOBLE, M.D., *St. Marys,*
CARL A. WILZBACH, M.D., *Cincinnati.*

A.M.A. HOTEL RESERVATIONS

Physicians planning to attend the Annual Meeting of the American Medical Association at St. Louis, May 15-19, should address requests for hotel reservations to Dr. Neil S. Moore, chairman of the hotel committee, 910 Syndicate Trust Bldg., St. Louis, Mo.

Annual Postgraduate Assembly at Youngstown on Thursday, April 20

Ohio physicians are cordially invited to attend the Twelfth Annual Postgraduate Assembly of the Mahoning County Medical Society, Thursday, April 20, at the Hotel Ohio, Youngstown. The program will be presented by the following members of the faculty of the University of Pennsylvania School of Medicine, Philadelphia: Dr. Chas. C. Wolferth, professor of clinical medicine; Dr. Jos. Stokes, associate professor of pediatrics; Dr. Richard A. Kern, professor of clinical medicine; and Dr. Eugene P. Pendergrass, professor of radiology.

Three lectures will be given at the morning session, beginning at 9 o'clock. They are: "Cardinal Features of Coronary Disease", by Dr. Wolferth; "Recent Advances in the Study and Treatment of Certain Virus Diseases", by Dr. Stokes; "General Principles of Allergy and Clinical Manifestations of Allergy", by Dr. Kern.

The afternoon session will begin at 2 o'clock with an address by Dr. Pendergrass on "Silicosis and Silicosis With Infection" Other lectures scheduled for this session are: "Continued Clinical Manifestations of Allergy and Principles of Diagnosis and Treatment", by Dr. Kern, and "Prophylaxis and Treatment in Certain Acute Infectious Diseases", by Dr. Stokes.

Following the banquet, Dr. Pendergrass will talk on "Roentgen Therapy of Infection", and Dr. Wolferth will discuss "Physical Examination of the Heart With Special Reference to Heart Sounds".

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. J. W. Arnold, Tiro; Dr. R. E. Cooke, Harrison; Dr. K. B. Browne, Whitehouse; Dr. F. E. Mahla, Worthington; Dr. G. F. Moench, Mt. Victory; Dr. G. R. Smith, Painesville; Dr. M. D. Boylan, Fairport; Dr. Azel Ames, Jr., Hamilton; Dr. J. A. Maxwell, Montpelier, and Dr. H. R. Campbell, Dayton.

AUDIT AND REPORT OF BOOKS OF THE OHIO STATE MEDICAL ASSOCIATION AND THE OHIO STATE MEDICAL JOURNAL FOR YEAR ENDED DECEMBER 31, 1938, BY KELLER, KIRSCHNER & MARTIN CERTIFED PUBLIC ACCOUNTANTS, COLUMBUS, OHIO.

THE ASSOCIATION

EXHIBIT A—Statement of Cash Receipts and Disbursements—for the year ended December 31, 1938.

Cash on deposit at January 1, 1938		$ 2,059.91
Certificates of deposit		7,000.00
United States Treasury Bonds		69,000.00
Total cash and bonds at Jan. 1, 1938		$ 78,059.91
RECEIPTS		
Membership dues, 1938—		
6,026 at $5.00	$30,130.00	
53 at 3.00	159.00	
49 at 2.00	98.00	
Total 1938 membership dues	$30,387.00	
Membership dues in 1937, not transferred in 1938	30.00	
Total membership dues	$30,417.00	
Annual meeting	4,627.25	
Interest	2,462.56	
Loan*	4,000.00	
Miscellaneous	12.00	
Total receipts		41,518.81
Total to be accounted for		$119,578.72
DISBURSEMENTS		
Ohio State Medical Journal	$11,000.00	
Executive Secretary—salary	6,000.00	
Executive Secretary—expense	603.00	
Asst. Exec. Secy.—salary	4,600.00	
Asst. Exec. Secy.—expense	250.85	
President expense	94.86	
Treasurer salary	300.00	
Council expense	818.85	
Council district subsidy	1,554.03	
Annual meeting	3,740.54	
Medical defense	473.10	
Committee on Public Relations	1,738.68	
Postgraduate lectures	2,328.03	
American Medical Assn. delegates	1,050.00	
Postage, telephone, and telegraph	1,546.25	
Rent	1,500.00	
Stenographer—salary	1,380.00	
Unemployment insurance, 1937; 1938	772.30	
Stationery, printing, and supplies	674.57	
Miscellaneous committee expense	513.30	
Auditing	100.00	
Dues and subscriptions	23.00	
Employees bonds	33.00	
Industrial insurance	12.44	
Miscellaneous expense	103.35	
Total disbursements		$ 41,210.15
Cash on deposit and bonds at December 31, 1938		78,368.57
Total accounted for		$119,578.72

EXHIBIT B—Statement of Cash and Bond Reconciliation at December 31, 1938.

The Huntington National Bank		
Balance as shown by bank statement at December 31, 1938		$ 1,954.44
Less checks outstanding		585.87
Balance of cash as shown by books at December 31, 1938		$ 1,368.57
Government Bonds and Certificates of Deposit		
U. S. Treasury bonds	$70,000.00	
Huntington National Bank certificate of deposit	7,000.00	
Total bonds and certificates of deposit at December 31, 1938		77,000.00
Total balance as shown by books at December 31, 1938		$ 78,368.57

*On Dec. 10, 1938, a 30-day loan in amount of $4,000.00 was obtained for the purpose of completing payment of 1938 expenses without necessity of transferring 1939 dues in advance or sacrificing interest income by liquidation of investments.

THE JOURNAL

FINANCIAL CONDITION

The financial condition of The Ohio State Medical Journal at December 31, 1938, (shown in detail in Exhibit A), was as follows:

Current assets		$ 1,866.24
Less current liabilities		50.00
Net current assets		$ 1,816.24
Property assets		2,072.84
Total net assets		$ 3,889.08

The above is represented by: Surplus $ 3,889.08

EXHIBIT A—Balance Sheet at December 31, 1938

Current Assets		
Cash—The Ohio National Bank		$ 1,249.70
Cash—petty		10.00
Total cash		$ 1,259.70
Accounts receivable		606.54
Total current assets		$ 1,866.24
Property Assets		
Furniture and fixtures (depreciated value)		2,072.84
Total Assets		$ 3,939.08
Current Liabilities		
Subscriptions prepaid		$ 50.00
Surplus		
Surplus at December 31, 1937	$ 4,016.30	
Less: Excess of expense over revenue for the year ended December 31, 1938	127.22	
Surplus at December 31, 1938		3,889.08
Total Liabilities and Surplus		$ 3,939.08

EXHIBIT B—Statement of Revenue and Expense for the year ended December 31, 1938

Revenue		
Advertising		$ 12,094.48
Less: Commissions on advertising	$ 757.20	
Cash discount	394.41	
Total		1,151.61
Advertising—net		$ 10,942.87
Circulation		11,149.25
Bad debts collected		52.00
Total revenue		$ 22,144.12
Expenses		
Journal printing	$14,815.52	
Office salaries	5,360.00	
Journal postage	729.58	
Illustrations and engravings	389.53	
Bad debts	18.50	
Depreciation	217.42	
Dues and subscriptions	93.95	
Stencils and mimeograph supplies	83.38	
Postage and express	20.10	
Clipping service	78.00	
Journal envelopes	305.58	
Repairs to office equipment	51.12	
Office supplies and expense	46.32	
Bank service charges	1.31	
Miscellaneous expense	61.03	
Total expense		22,271.34
Excess of expense over revenue for year ended Dec. 31, 1938		$ 127.22

EXHIBIT C—Statement of Cash Reconciliation at December 31, 1938

THE OHIO NATIONAL BANK		
Balance as shown by bank statement at December 31, 1938		$ 1,249.70
Less: Outstanding checks		
Balance as shown by books December 31, 1938		$ 1,249.70
Add: Petty cash		10.00
Total cash		$ 1,259.70

Ohio's Women's Field Army Against Cancer Needs Aid Of Physicians in Enlistment Campaign During April

THE Women's Field Army Against Cancer of the American Society for the Control of Cancer will conduct its first annual enlistment campaign in Ohio during the month of April. By Congressional enactment, April is known as "Cancer Control Month" throughout the United States. It has been similarly designated by Governor Bricker in Ohio.

Founded in 1936 for the purpose of bringing to the public the known and accepted facts about cancer and methods for its control, the organization now extends to 46 states. It has the approval of the American Medical Association and the American College of Surgeons.

ENDORSED BY ASSOCIATION

Ohio's part in this nation-wide movement was endorsed by The Council of the Ohio State Medical Association, April 27, 1937. The activities of the organization are educational. Its slogan is "Fight Cancer with Knowledge". Policies are determined by an executive committee of five persons, three of whom were named by The Council of the Ohio State Medical Association. They are: Dr. Lawrence A. Pomeroy, Cleveland; Dr. Carl A. Wilzbach, Cincinnati; and Dr. Edgar C. Baker, Youngstown. Other members of the committee are Dr. R. W. Markwith, State Director of Health, and Mrs. Ralph W. Hoffman, wife of a Columbus physician. Dr. Wilzbach is a member of the Committee on Education and chairman of the Sub-Committee on Public Health Education of the State Association. Mrs. G. A. Vincent, Bloomdale, is commander of the Ohio Division.

To facilitate the work of the organization, Ohio has been divided into 10 districts, identical with the Councilor Districts of the State Association, with a vice-commander in charge of each district. Each county in the district has an executive committee composed of three representatives of the county medical society, the county health commissioner and a representative of the local unit of the Women's Field Army.

THIS YEAR'S PLANS

This year's campaign will be restricted to those districts in which the organization has been perfected. They include 54 counties located in the First, Fourth, Fifth, Sixth, Ninth and Tenth Councilor Districts.

The Women's Field Army is counting heavily on the support of the medical profession in this project. Physicians are being requested to speak on the radio and address public meetings on the value of regular physical examinations, the importance of the recognition of early symptoms of cancer and the necessity of prompt treatment when symptoms of cancer are discovered.

The goal of the Women's Field Army in Ohio this year is 50,000 recruits. The enlistment fee is $1.00. Of the funds collected, 70 per cent is to be returned to Ohio for educational purposes and 30 per cent retained by the American Society for the Control of Cancer.

VITAL STATISTICS

There is great need in Ohio for this educational program. As shown by the accompanying data furnished by I. C. Plummer, chief, Division of Vital Statistics, State Department of Health, the male death rate from cancer in this state has increased 38.9 per cent since 1918, and the female death rate has increased 21.4 per cent. Cancer is the second highest single cause of death in Ohio.

NUMBER OF DEATHS FROM CANCER BY SEX WITH RATES PER 100,000 POPULATION FROM 1918-1937 IN OHIO

Years	Males	Rate	Females	Rate
1918	1876	65.23	2916	106.78
1919	1964	67.03	2927	105.31
1920	2212	74.32	3023	106.92
1921	2134	70.76	3151	109.62
1922	2348	76.85	3204	109.67
1923	2472	79.87	3319	111.82
1924	2417	77.10	3505	116.23
1925	2511	79.12	3309	108.04
1926	2745	85.42	3702	119.06
1927	2822	86.75	3698	117.15
1928	2990	90.81	3894	121.53
1929	2969	89.10	3914	120.39
1930	3050	90.46	4035	122.34
1931	3082	90.36	4019	120.17
1932	3343	96.88	4319	127.32
1933	3394	97.24	4224	122.83
1934	3558	100.81	4485	128.67
1935	3676	102.10	4587	129.84
1936	3754	104.04	4789	136.58
1937	3900	106.91	4703	129.68

Success of this program rests in a large measure on the full cooperation of the medical profession.

$1,500 Prize Awaits Best Essay

Essays in competition for the Samuel D. Gross prize of $1,500 will be received until January 1, 1940. Conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice founded upon original investigations, the candidates for the prize to be American citizens". Detailed information may be attained by writing to the Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 19 S. 22nd St., Philadelphia, Pa.

The Physician's Office Records

(Part 2)

STANLEY R. MAUCK

LAST month's article emphasized the importance of simple, but adequate financial records as a necessary part of office efficiency in professional practice.

It was pointed out that every office should have records that will set forth correctly and clearly the following information: (1) **Amount owed by each patient**; (2) **Total monthly practice volume**; (3) **Total monthly income, classified as to (a) cash at the time of service and (b) payments on account**; (4) **Collection ratio, or the percentage of total receipts as against the total practice volume**; **and (5) Total amount and distribution of professional expenses.**

Because the patient's Ledger Card is regarded as the most important of all the physician's financial records, the entire article was devoted to the proper use of this one form, leaving the other records to be discussed in this article.

Most physicians do, of course, make some pretense of record-keeping that relates to what their patients owe, although seldom is this record maintained in the form that is efficient and complete, according to the standards given in the preceding article. Many offices, however, keep no accurate figures as to the total monthly practice and the monthly income. Only occasionally do we find a physician who goes a little farther to include among his records a simple system of classified professional expenses, so that he may know just how much of his gross income is required to maintain himself in the "business" of being a physician.

THREE IMPORTANT RULES

No one need be frightened at the task of making a few essential entries in a set of elemental records which will give him the information needed to reflect his true financial status. Unless a physician's practice is exceedingly large, and complicated by extensive outside interests such as real estate, investments, securities, etc., all the books and records needed to keep track of the financial side of his practice may be purchased at a very small cost at any stationery store.

Three rules must be observed, however, to keep the records straight in even the most simple setup. **First**, the physician must thoroughly familiarize himself with the simple records which he installs and understand their purpose. **Second**, the posting must be done daily, by the physician himself or someone to whom the task is delegated. **Third**, the records should be kept on a monthly basis and accurately totaled for each period.

Besides the Ledger Card, discussed at length last month, which controls all financial relations with the individual patients, a standard "Day Book" or "Daily Register" is essential in every office. This day sheet is a basic and original record. It should contain a complete picture of each day's relations with the physician's patients, so far as the financial data is concerned. The name of every person served by the doctor, whether in the hospital, home or office, should be put down as soon as possible after the service has been rendered. Likewise, all payments received, either by mail or direct at the office, should be entered daily in this Register. In order to be effective, this record must be kept strictly up-to-date and actually include ALL the transactions involved in each day's practice. The physician who cannot, or will not, train himself to force all entries through this master record will never have complete data on his practice. All postings to the Ledger Cards are made from this Daily Register, and if this work is kept up-to-date the patients' accounts will always show their current standing. The Register is also a convenient place to carry miscellaneous notations, as for instance, cash expenditures for various items of professional expense which should be recorded here for proper distribution in the record subsequently mentioned.

The Daily Register should contain enough space for several columns. A wide column can contain the name and address of each patient. Space should be provided in a second column for a brief description of the services rendered, such as "House Call", "Office Call", "O.B.", "Medicine", etc. Also brief notations may be made in this column about cases on which no other history record is set up. A third column titled "Practice Charged" is for the entry of all fees not paid for at the time the service is rendered. A fourth column captioned "Practice Cash" is for the entry of all fees paid for at the time the service is rendered. A fifth column should be headed "Received on Account" and in it should be entered the amount of all payments received from patients against charges previously made. There are many varieties of books which can be used for the Daily Register purpose. Many find it convenient to use a large diary book, although columnar divisions are not all that is desired. Whatever the form, however, only one day's transactions should be included on the same page.

If the Daily Register has been kept properly,

it is a simple matter to take off a monthly summary of the physician's practice. The daily totals for "Practice Charged" and "Practice Cash" give the "Total Practice" for the month. The "Practice Cash" plus the "Received on Account" gives the "Total Cash Receipts" for the month, and the relationship of this total to the total practice is the collection ratio. As an example, if the total volume of practice for a given month is $500.00 and the total amount of money received is $400.00, the collection ratio is 80 per cent.

These monthly figures are both interesting and important. When they are transferred to a summary sheet, either at the back of the daily register or in a separate book for that purpose, they give the physician a definite financial picture of his practice and also furnish information for use in making out his income tax returns. Every physician should know how much practice he has done and the correct amount of his professional income.

SEGREGATION OF EXPENSES

A third record essential to complete an adequate setup for the physician is one which will segregate his professional expense from his personal transactions. From his check book stubs and the memoranda of cash expenditures as noted on his daily register sheets, a distribution of these expenses should be made in a separate record under such classification as Salaries, Drugs and Supplies, Heat-Light-Telephone, Postage and Office Supplies, Professional Dues and Subscriptions, Rent, Auto, Furniture and Equipment, and Miscellaneous. Provision can also be made in this book to control the bank balance, if desired, and thus it becomes a complete "Cash Receipts and Disbursement Record". The practical value of such a record lies in the assistance it renders in making out income tax returns. By segregating and distributing his monthly professional expenses, the physician's tax forms at the end of the year are a simple matter. Aside from this advantage, however, every physician should have an intelligent knowledge of the financial details of his practice and know what it is costing him to conduct the business side of his profession.

NO STANDARD PATTERN

It is not the purpose of this article to go into the details of the forms and records needed for efficiency in the physician's office. Many variations in these records are possible and all of them may be right. There is no standard pattern for the ideal system. So long as the system is adequate to give the five points of information outlined in the beginning, the records may be said to be satisfactory. With the will to do so, and with possibly a little outside assistance in getting started, any physician can set up and maintain a simple system which will adequately meet his requirements—**provided he works the system after it is once established.** Our sole purpose here has been to emphasize the need for better records in the office of the average physician, because better records will ordinarily mean better income, more satisfactory business relations with his patients, and a better understanding of the physician's own financial situation. Information about the particular set of simple records developed and used by the author in the work of the Columbus Bureau of Medical Economics will be furnished on request.

The fifth article in this series will discuss "The Follow-Up of Delinquent Accounts".

Program on Medical History

A new section, devoted to the discussion of various phases of medical history, has been added to the annual meeting of the Ohio Archaeological and Historical Society which will be held at the Archaeological Museum on the campus of Ohio State University, Columbus, Friday, April 7, beginning at 2:00 P. M.

The program has been entitled "The Pioneer Physicians of Ohio—Their Lives and Their Contribution to the Development of the State, 1788-1835". The following addresses are scheduled: "The Legal Requirements for Medical Practice—An Attempt to Regulate by Law and the Purposes Behind the Movement", by Dr. Donald D. Shira, Columbus; "The Education of the Pioneer Physicians of Ohio", by Dr. F. C. Waite, Cleveland; "The Equipment, Instruments, and Drugs of the Pioneer Physicians of Ohio", by Dr. Howard C. Dittrick, Cleveland; "The Medical Journals of the Pioneer Physicians of Ohio", by Dr. Jonathan Forman, Columbus; "The Part That the Pioneer Physicians Played in Getting Certain Institutions for the Citizens of Ohio, Such as the Commercial Hospital, the School for the Deaf, and the Blind", by Robert G. Paterson, Ph.D.; "The Part That the Pioneer Physicians of Ohio Played in the Community as Exemplified in the Church and Lodge", by Dr. James J. Tyler, Youngstown; "The Beginning of Formal Dental Education at Bainbridge, Ohio", by Edward C. Mills, D.D.S., Columbus. All papers will be limited to 30 minutes. Any person, whether a member of the society or not, is welcome to attend the meeting.

American Heart Association Programs

Scientific sessions of the American Heart Association, Inc., will be held at Hotel Jefferson, St. Louis, Mo., May 12-13, the general cardiac program on Friday, May 12, and the program of the section for the study of the peripheral circulation on Saturday, May 13. Details concerning the sessions can be obtained by writing the office of the association, 50 West 50th St., New York City.

In Memoriam

Fred Y. Allen, M.D., St. Petersburg, Fla.; Cleveland College of Physicians and Surgeons, 1898; aged 65; former member of the Ohio State Medical Association and the American Medical Association; died February 26. Dr. Allen retired in 1929 after having practiced in Cleveland for many years. He was a member of the Masonic Order and Phi Gamma Delta. Surviving are his widow, a daughter, two sons and a brother.

Lester Jarvis Benson, M.D., Lakewood; Chicago Homeopathic Medical College, 1903; University of Illinois College of Medicine, 1906; aged 79; died February 12. A member of the staff of Lakewood Hospital, Dr. Benson practiced in Lakewood for 25 years. He had previously been located in Chicago. Dr. Benson was a member of the Masonic Order. His widow and a son survive.

Treber Coleman Crawford, M.D., Portsmouth; Starling Medical College, Columbus, 1897; aged 70; member of the Ohio State Medical Association and the American Medical Association; died March 7. Dr. Crawford practiced in Portsmouth for 17 years. From 1897 to 1913 he had practiced in Dunkinsville, and was later associated with Dr. O. T. Sproull at West Union for several years. Dr. Crawford was a member of the Masonic Order, I.O.O.F., and the Methodist Church. Surviving are his widow, two daughters, and four sisters.

Justin M. DeFord, M.D., Rossburg; Cincinnati College of Medicine and Surgery, 1892; aged 83; member of the Ohio State Medical Association and the American Medical Association; died March 4. Prior to beginning his medical education, Dr. DeFord had graduated in engineering at Ohio Northern University, Ada, and from 1884 to 1889 was county surveyor in Mercer County. During his 44 years in the practice of medicine in Rossburg, Dr. DeFord was actively identified with many civic enterprises. He served for many years on the local Board of Education, and at one time was a member of the Darke County Board of Education. Dr. DeFord was a member of the Masonic Order and the Methodist Church. Surviving are his widow, four daughters, four sons and a sister.

Carl Eugene Edwards, M.D., Bradley; Ohio State University College of Medicine, 1914; aged 50; died February 18. A native of Washington County, Dr. Edwards first practiced medicine in Marietta. For the past 11 years he had been located in Bradley, Jefferson County. Dr. Edwards served overseas in the U. S. Army during the World War. He was a member of the Masonic Order, American Legion and the Church of Christ. Surviving are his widow, a daughter, a son, four sisters, two brothers, one of whom is Dr. S. E. Edwards, Marietta.

James Franklin Frye, M.D., Whitehouse; Western Reserve University School of Medicine, 1929; aged 39; died March 2. A former member of the hospital staff at Wauseon, Dr. Frye first practiced medicine at Ridgeville Corners, Henry County, locating in Whitehouse in 1934. He was vice-president of the Whitehouse Commercial Club, and president of the village council. Dr. Frye was a Mason. His widow, two daughters, a son, his parents and two sisters survive.

George F. Garmier, M.D., Hartville; Western Reserve University School of Medicine, 1896; aged 74; former member of the Ohio State Medical Association and the American Medical Association; died February 13. Dr. Garmier practiced at Massillon and McDonaldsville before locating in Hartville 28 years ago. Two brothers survive.

George Christopher Gilfillen, M.D., Dayton; University of Cincinnati College of Medicine, 1912; aged 50; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died February 22. Dr. Gilfillen located in Dayton 19 years ago, after practicing with his father, the late Dr. Alexander Gilfillen, in Rushville for six years. He was secretary of the Dayton Obstetrical Society and a former chairman of the Section on Obstetrics and Gynecology of the Ohio State Medical Association. Dr. Gilfillen was a member of the Mercator Club, Knights of Pythias and the Masonic Order. His widow and two sons survive.

George Goodhue, M.D., Dayton; Dartmouth Medical School, Hanover, N. H., 1880; New York University Medical College, 1880; aged 86; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died February 25. Dayton's oldest practicing physician, Dr. Goodhue had practiced there for 58 years. He had been a trustee of Miami Valley Hospital for 36 years. His hobbies were hunting and harness racing. He was a Mason and a member of the Congregational Church. His widow survives.

Robert H. Grube, M.D., Long Beach, Cal.; Medical College of Ohio, Cincinnati, 1886; aged 83; former member of the Ohio State Medical Association and the American Medical Association; died February 23. Dr. Grube retired from active practice in 1932 and moved to California. He first practiced medicine in Pittsburgh, Pa., locating in Grape Grove, Greene County in 1899. Dr. Grube became a member of the staff of McClellan Hos-

pital, Xenia, in 1904. He later served as health commissioner of Xenia and in 1920 became health commissioner of Greene County. A former president of the Greene County Medical Society, Dr. Grube also served as a councilor of the Ohio State Medical Association from 1910 to 1916 and was a member of the State Board of Health from 1910 to 1915. A son survives.

Harvey Allen Harding, M.D., Amsterdam; Starling Medical College, Columbus, 1898; aged 72; former member of the Ohio State Medical Association and the American Medical Association; died February 7. Dr. Harding practiced in Kilgore from 1899 to 1913, then in Canton for one year and for 20 years in Amsterdam, retiring in 1934 because of ill health. He was a member of the Methodist Church. Surviving are one daughter, two sons and a sister.

Edward Daniel Helfrich, M.D., Columbus; Ohio Medical University, Columbus, 1902; aged 64; member of the Ohio State Medical Association; Fellow of the American Medical Association and certified by the American Board of Otolaryngology; member of the American Academy of Ophthalmology and Otolaryngology; died March 21. A native of Galion, Dr. Helfrich practiced there for 18 years. He also represented Crawford County in the Ohio General Assembly for four years. Dr. Helfrich practiced in Columbus for the past 18 years. He was a member of the Masonic Order, B. P. O. E., and the Reformed Church. His widow, a daughter and two sisters survive.

Jacob Murray Hoskins, M.D., Marion; Kentucky School of Medicine, Louisville, Ky., 1904; aged 57; member of the Ohio State Medical Association and the American Medical Association; died March 1. Dr. Hoskins practiced in Marion for 34 years. During the World War he served in France as a captain in the Medical Corps of the U. S. Army. Dr. Hoskins was a member of the Eagles and the American Legion. Two sons survive.

Harold O. Lund, M.D., Middletown; University of Minnesota Medical School, Minneapolis, Minn., 1922; aged 42; member of the Ohio State Medical Association; Fellow of the American Medical Association and member of the American Academy of Pediatrics; died March 6. Dr. Lund practiced in Middletown for 14 years. During the World War he was stationed at Fort Snelling, Minn. He was a member of the American Legion. Surviving are his widow, a daughter and a son.

Walter S. Mason, M.D., Cambridge; Medical College of Ohio, Cincinnati, 1889; aged 75; died February 14. Dr. Mason practiced in Stafford, Monroe County, for 45 years, retiring in 1935 because of ill health. Surviving are his widow, four daughters and four brothers, two of whom are physicians, Dr. George M. Mason, Summerfield, and Dr. J. L. Mason, Lowell.

Samuel Morison McConnell, M.D., Rochester, Pa.; New York University Medical College, New York, 1879; aged 95; died February 26. Dr. McConnell retired 25 years ago after having practiced in Wellsville for about 30 years. He was a member of the Presbyterian Church. Surviving are a daughter, two sons and a brother.

Russell Clinton McNeill, M.D., Kenton; Starling Medical College, Columbus, 1896; aged 70; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 9. From 1896 to 1920 Dr. McNeill practiced in Belle Center, and since 1921 had been in Kenton. He was active in civic affairs and a member of the Masonic Order and the Presbyterian Church. His widow and three sons survive.

Jean Sears Millard, M.D., Akron; Harvard University Medical School, Boston, Mass., 1910; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died in Phoenix, Arizona, February 24. Dr. Millard was medical director of the Goodyear Tire and Rubber Company, and dermatologist on the staff of People's Hospital. He had been a member of the Summit County Medical Society since November 4, 1913. Dr. Millard was a member of Sigma Alpha Epsilon. His widow survives.

Stephen A. D. Miller, M.D., Seattle, Washington; Starling Medical College, Columbus, 1886; aged 75; died February 13. Dr. Miller practiced in Lancaster from 1910 to 1915. Surviving are his widow, two sisters and a brother.

Francis Marion Replogle, M.D., Palms, California; Miami Medical College, Cincinnati, 1895; aged 85; died early in February. Dr. Replogle moved to California 17 years ago, after having practiced in Lightsville, Darke County, for many years. His widow, a son, a sister and two brothers survive.

Robert Sattler, M.D., Cincinnati; Miami Medical College, Cincinnati, 1875; aged 84; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; member and past-president of the American Ophthalmological Society; died February 20. Emeritus professor of ophthalmology of the University of Cincinnati College of Medicine, Dr. Sattler was outstanding in his field. For many years he was chief of the ophthalmological service at Cincinnati General Hospital. He had practiced in Cincinnati for over 60 years. Dr. Sattler contributed much to the literature on diseases of the eye. In recognition of his attainments, the class of 1912 of the University

of Cincinnati College of Medicine dedicated the June, 1937, alumni reunion to him. Surviving are his widow, five daughters, a son and a sister.

Anna M. Hill Shinnick, M.D., Zanesville Woman's Medical College, Cincinnati, 1894; aged 75; former member of the Ohio State Medical Association and the American Medical Association; died March 12. One of the pioneer physicians of Muskingum County, Dr. Shinnick was active in the philanthropic work of the county. Two brothers and a sister survive.

Christopher W. Stoll, M.D., Dover Center; Western Reserve University School of Medicine, Cleveland, 1893; aged 71; died February 17. Dr. Stoll practiced in Dover Center and vicinity for 44 years. He was a member of the Masonic Order and the Congregational Church. His widow, two daughters and two sisters survive.

Royal Deforest Sykes, M.D., Cumberland, Md.; Western Reserve University School of Medicine, Cleveland, 1887; aged 73; died February 2. Dr. Sykes was first assistant chief medical examiner of the Baltimore & Ohio Railroad Company until his retirement six years ago. A native of Plymouth, he practiced there and at Willard before entering the service of the B. & O. During his 35 years in that company, he was located at Newark, Zanesville, Pittsburgh, Pa., and Cleveland. Dr. Sykes was a member of the Presbyterian Church. Surviving are his widow, a daughter, two sisters and three brothers.

Oliver Archibald Taylor, M.D., Cleveland; Meharry Medical College, Nashville, Tenn., 1894; age 67; died February 25. Dr. Taylor came to Cleveland 20 years ago after 24 years of medical practice in Topeka, Kansas. Active in civic and social service affairs, Dr. Taylor was a past-president of the Negro Welfare Association. His widow and a sister survive.

Charles W. Tufts, M.D., Wyoming; Medical College of Ohio, Cincinnati, 1884; aged 84; died February 15. Dr. Tufts retired in 1935, after practicing 50 years at Hartwell. A daughter and a son survive.

Gladwin Anson Woodworth, M.D.; San Antonio, Texas; Northwestern University Medical School, Chicago, 1925; aged 46; former member of the Ohio State Medical Association and the American Medical Association; died March 4. Dr. Woodworth went to Texas recently because of ill health. He had practiced in Niles for 10 years, and formerly was located at Howell, Michigan. Dr. Woodworth was a lieutenant in the Medical Corps of the U. S. Army during the World War. He was a member of the Masonic Order, I.O.O.F., American Legion, Eastern Star, Kiwanis Club, Theta Chi and Phi Chi. His widow, two sisters and two brothers survive.

Franklin Young, M.D., Terre Haute, Ind.; Eclectic Medical College, Cincinnati, 1890; aged 73; died March 6. Dr. Young formerly practiced at Ansonia and Union City. He located in Terre Haute, 25 years ago. His widow, two daughters and two brothers survive.

Toledo Hospitals Select Officers

The following staff officers have been elected by Toledo hospitals: **St. Vincent's Hospital**—Dr. E. J. McCormick, chief; Dr. R. C. King, vice-chief; Dr. A. P. Hancuff, secretary; **Mercy Hospital**—Dr. T. F. Heatley, chief; Dr. F. L. Eyestone, vice-chief; Dr. L. R. Effler, secretary-treasurer; **Toledo Hospital**—Dr. L. C. Grosh, Sr., chief; Dr. L. F. Smead, vice-chief; Dr. G. H. Reams, secretary-treasurer; **Robinwood Hospital**—Dr. H. L. Green, chief; Dr. R. S. Gillette, secretary-treasurer; **Women's and Children's Hospital**—Dr. H. B. Meader, chief; Dr. N. B. Muhme, vice-chief; Dr. K. R. Howard, secretary; Dr. J. H. Smith, treasurer; Dr. J. P. McLacklin and Dr. J. B. Dobkin, members of the executive committee; **Lucas County Hospital**—Dr. E. C. Mohr, chief; Dr. H. B. Meader, vice-chief; Dr. K. Renshaw, secretary; Dr. E. J. McCormick, director of surgery; Dr. C. S. Mundy, director of medicine; Dr. Mundy, Dr. McCormick, Dr. Mohr, Dr. S. D. Giffen, Dr. Meader, Dr. G. H. Reams, Dr. Renshaw, Dr. H. Holmes and Dr. W. O. Bonser, members of the executive council.

Physicians' Art Exhibit

The American Physicians' Art Association composed of members in the United States, Canada, and Hawaii, will hold its second Art Exhibit in the City Art Museum of St. Louis, May 14-20, during the annual session of the American Medical Association. Pieces will be accepted for this art show in the following classifications: (1) oils both (a) portrait and (b) landscape; (2) water colors; (3) sculpture; (4) photographic art; (5) etchings; (6) ceramics; (7) pastels; (8) charcoal drawings; (9) book-binding; (10) wood carving; (11) metal work (jewelry). Practically all pieces sent in will be accepted. There will be over 60 vauable prize awards. For details of membership in this association and rules of the exhibit, write to Dr. Max Thorek, secretary, 850 Irving Park Blvd., Chicago, Ill., or F. H. Redewill, M.D., president, 521-536 Flood Bldg., San Francisco, California.

P-G Course in Neuropsychiatry

For the fifth consecutive year, the psychiatric staff of the Menninger Clinic, Topeka, Kansas, will offer a week's postgraduate course in "Neuropsychiatry in General Practice," April 17-22. Enrollment is limited to 30. Address inquiries to Dr. Robert P. Knight, chairman.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

CLINTON

"Influenza and Its Treatment" was discussed by Dr. J. A. DeBold, Wilmington, and Dr. C. W. Matthews, New Vienna, at a meeting of the Clinton County Medical Society, Tuesday noon, March 7, at the General Denver Hotel, Wilmington.—News clipping.

FAYETTE

Dr. R. W. Kissane, Columbus, gave a very interesting talk on "Coronary Artery Occlusion", at a meeting of the Fayette County Medical Society, Thursday afternoon, March 16, at the Cherry Hotel, Washington C. H.—James F. Wilson, M.D., secretary.

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during March:

March 7—"Experiences with Protamine Zinc Insulin", by Dr. Herman O. Mosenthal, professor of medicine, New York Post-Graduate Medical School, Columbia University, New York.

March 14—"Presentation of an Invalid-Lifting Apparatus", by Dr. Robert D. Maddox; "Fainting: Diagnosis and Treatment", by Dr. Eugene B. Ferris, Jr.; "The Diagnosis of Normality", by Dr. Maurice Levine, discussed by Dr. Arthur G. Bills, head of the Department of Psychology, University of Cincinnati.

March 21—"Radiotherapy for Inflammatory and Malignant Conditions", by Dr. Arthur U. Desjardins, Section on Therapeutic Radiology, The Mayo Clinic, Rochester, Minn.

March 28—Hospital Night. Case Reports arranged and presented by the staff of Good Samaritan Hospital. "Massive Ovarian Hemorrhage", by Dr. Lester W. McDevitt; "Lipoid Histocytosis (Multiples Xanthomatosis)", by Dr. William H. Craddock; "Leiomyoma of Stomach", by Dr. Clyde S. Roof; "Barbiturate Poisoning Treated With Picrotoxin", by Dr. Leo A. Smith; "Tuberous Sclerosis", by Dr. Edward A. Wagner; "Bullous Skin Lesions" (two cases), (a) Dr. Edward King and Dr. R. G. Senour, (b) Dr. Daniel J. Davies, Dr. Louis E. Valker and Dr. Daniel J. Kindel; "Reticulum Cell Lymphoblastoma", by Dr. George H. Knapp and Dr. J. E. McCarthy.—Bulletin.

HIGHLAND

Dr. Louis B. Owens, Cincinnati, was the speaker at a meeting of the Highland County Medical Society, Wednesday noon, March 1, at the Tannehill Tea Room, Hillsboro.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

At a meeting of the Clark County Medical Society, Thursday noon, February 17, at the Hotel Shawnee, Springfield, Dr. Frank C. Andrus spoke on "Significance of Clinical Findings in Nephritis".—News clipping.

DARKE

"Diagnosis and Treatment of Common Skin Diseases", was the subject discussed by Dr. Elmer C. Loomis, Dayton, at a meeting of the Darke County Medical Society, Friday evening, March 17, at the Cul-Mor Tea Room, Greenville. —W. D. Bishop, M.D., secretary.

GREENE

Dr. A. B. Brower, Dayton, gave an excellent lecture on "Hypotension" at a meeting of the Greene County Medical Society, Thursday, March 2, at Xenia. The society has purchased a stereopticon lantern and screen for the use of guest speakers. The next meeting, Thursday, April 6, will be devoted to problems in medical economics and public relations.—Donald F. Kyle, M.D., secretary.

MIAMI

A meeting of the Miami County Medical Society was held at Piqua Memorial Hospital, Friday afternoon, March 3. Dr. C. E. Hetherington spoke on "The Care of the Senile Patient".—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

"An Outline of the Services of the Division of Health" was the subject presented by Dr. H. H. Williams, health commissioner of Dayton, at a meeting of the Montgomery County Medical Society, Friday evening, March 3, in the auditorium of the Fidelity Medical Building, Dayton. Dr. C. C. Payne and Dr. R. L. Woodruff were discussants.

Dr. Grover C. Penberthy, Detroit, Mich., past-president of the Michigan State Medical Society, spoke on "Burns, Their Treatment and Management", at a meeting of the society, Friday evening, March 17.—Mildred E. Jeffrey, executive secretary.

PREBLE

Dr. Sterling H. Ashmun, Dayton, lectured on "Contagious Diseases" at a meeting of the Preble

County Medical Society, Wednesday morning, February 15, at the Court House, Eaton.—News clipping.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

HARDIN

"The History of Medicine in Ohio" was discussed by Robert G. Paterson, Ph.D., secretary of the Ohio Public Health Association, and Dr. Donald D. Shira, assistant secretary, at a joint meeting of the Hardin County Medical Society and the Kenton Rotary Club, Thursday night, February 16, at Kenton.—News clipping.

Dr. C. C. Sherburne, Columbus, spoke on "The Treatment of Pneumonia" at a meeting of the Hardin County Medical Society, Thursday night, March 16, at Kenton.—News clipping.

MARION

Dr. Barney J. Hein, Toledo, President of the Ohio State Medical Association, and Lawrence D. Stanley, Columbus attorney, were guest speakers at a joint dinner meeting of the Marion County Academy of Medicine, Marion County Bar Association and the Marion Dental Society, Tuesday, March 7, at the Hotel Harding, Marion. Dr. Hein discussed some of the recent developments and problems in medical economics and Mr. Stanley spoke on medical jurisprudence. Approximately 100 persons attended the meeting, including guests from Delaware, Morrow, Crawford, Wyandot, Hardin and Union counties.—News clipping.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during March:

March 3—General Meeting. "Abnormal Renal Mobility", by Dr. Parke G. Smith, assistant professor of clinical surgery, University of Cincinnati College of Medicine.

March 10—Section of Pathology, Experimental Medicine and Bacteriology. "Recent Advances in Endocrinology", by Dr. Willard O. Thompson, associate clinical professor of medicine, Rush Medical College, University of Chicago.

March 17—Medical Section. "The Problem of Hypertension from the Practitioner's Standpoint", by Dr. Roy W. Scott, professor of clinical medicine. Western Reserve University School of Medicine, Cleveland.

March 24—Surgical Section. "Some of the Problems Which Confront a Thyroid Surgeon", by Dr. Andre Crotti, Columbus, International President, International College of Surgeons.

March 31—Eye, Ear, Nose and Throat Section. "Neuralgia of the Face and Head from Sinus Disease", by Dr. Harris H. Vail, department of otolaryngology, University of Cincinnati College of Medicine.—Bulletin.

PUTNAM

At a meeting of the Putnam County Medical Society, Tuesday, March 7, at the Hotel Putnam, Ottawa, a proposed group medical service plan was discussed and plans made for its operation under the pending enabling act, when and if passed by the Ohio General Assembly. Putnam County is among the first in Ohio to have a workable plan nearing completion. It is hoped that many other counties are formulating similar plans, to the end that administration of such plans may be kept in the hands of the medical profession.—H. N. Trumbull, M.D., correspondent for *The Journal.*

SANDUSKY

At a meeting of the Sandusky County Medical Society, Thursday, February 23, at Fremont, Dr. B. G. Shaffer, Toledo, discussed "The Diagnosis and Surgical Treatment of Gall Bladder Disease", and Dr. C. W. Waggoner, Toledo, spoke on "The Treatment of Typhoid, Undulant, Rabbit and Rheumatic Fevers". Dr. Arthur P. R. James, Toledo, gave an address on "Skin Diseases", using natural color photography, at a meeting of the society, Thursday, March 23.—E. C. Swint, M.D., secretary.

WOOD

"The Management of the Asthmatic State" was the subject presented by Dr. Karl D. Figley, Toledo, at a meeting of the Wood County Medical Society, Thursday evening, March 16, at the Woman's Club, Bowling Green.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

At the annual dinner-dance of the Ashtabula County Medical Society, Tuesday night, February 14, at Hotel Ashtabula, Dr. S. M. Lynn was presented with a life membership in the society in recognition of his 50 years in the practice of medicine.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during March:

March 3—Clinical and Pathological Section. "Hodgkin's Disease with Specific Cutaneous Manifestations", by Dr. Hal Freeman; "Cure of Pneumococcic Meningitis with Sulfapyridine", by Dr. Luther Terry; "Syringo-Bulbia with Observations on Involvement of the Trigeminal Nerve", by Dr. C. H. Cronick and Dr. L. J. Karnosh; "Pre-Pubertal Vaginal Flora", by Dr. J. D. Pilcher and

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GYNECOLOGY—Two Weeks Course, June 5th and October 9th. Two Weeks Personal Course, June 19th. Four Weeks Personal Course August 28th.
OBSTETRICS—Two Weeks Intensive Course June 19th and October 23rd. Informal Course every week.
FRACTURES & TRAUMATIC SURGERY—Ten Day Formal Course June 19th and September 25th. Informal Course every week.
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March 10—Joint Meeting. Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "The Pharmacology of Tetramethyl Tin", by Dr. Joseph Seifter; "A Mechanical Respirator as an Adjunct to Closed System Anesthesia for Resuscitation in Asphyxia", by Dr. Frederick R. Mautz; "A New Method for Producing Gradual Occlusion of an Artery", by Dr. Kenton R. Phelps; "Photographic Records of the Phasic Blood Flow in Coronary Arteries Obtained by a New Differential Manometric Method", by Donald E. Gregg, Ph.D., and Dr. Harold D. Green; "Some Factors Influencing the Appearance of Ossification Centers", by Dr. C. C. Francis.—Bulletin.

ERIE

Dr. I. H. Einsel, Cleveland, spoke on "The Common and Rare Diseases of the Stomach", at an inter-county meeting of physicians of Huron, Erie, Sandusky and Ottawa counties, sponsored by the Erie County Medical Society, Wednesday evening, March 1, at the Hotel Rieger, Sandusky. —News clipping.

LORAIN

At a meeting of the Lorain County Medical Society, Tuesday evening, March 14, at the Lorain County Club, Dr. John A. Toomey, Cleveland, spoke on "The Differential Diagnosis of Irritation of the Meninges".—L. H. Trufant, M.D., secretary.

MEDINA

Dr. John H. Lazzari, Cleveland, discussed "Cancer" at a meeting of the Medina County Medical Society, Thursday evening, February 16, at the Evanon, Medina.—News clipping.

Sixth District

(COUNCILOR: WM. M. SKIPP, M.D., YOUNGSTOWN)

ASHLAND

Dr. Robert S. Dinsmore, Cleveland, spoke on "The Gallbladder", at a dinner meeting of the Ashland County Medical Society, at the Ashland Country Club, Friday, March 10.

The society approved the increase of State Association dues from $5 to $7, and also approved the proposed plan for redistricting the state, which would remove Ashland County from the Sixth District and place it in the new Eleventh District.—H. Wayne Smith, M.D., secretary.

MAHONING

"Iodine Metabolism in Thyroid Diseases" was the subject of an address made by Dr. George M. Curtis, professor of surgery, Ohio State University College of Medicine, at a meeting of the Mahoning County Medical Society, Tuesday evening, March 21, at the Youngstown Club.—C. A. Gustafson, M.D., correspondent for *The Journal.*

PORTAGE

A meeting of the Portage County Medical Society was held in the office of Dr. J. H. Krape, Kent, Thursday evening, March 2. The guest speaker, Dr. John P. Tucker, Cleveland, discussed "Some Practical Aspects in the Diagnosis and Treatment of Anemia".—E. J. Widdecombe, M.D., secretary.

RICHLAND

Dr. Henry J. John, Cleveland, spoke on "The Treatment of Diabetes", with special reference to the use of protamine insulin, at a meeting of the Richland County Medical Society, Thursday afternoon, March 23, at Mansfield General Hospital.—L. D. Bonar, M.D., secretary.

STARK

"Differential Diagnosis and Management of Lesions of the Large Bowel", was the subject discussed by Dr. Richard B. Cattell, Lahey Clinic, Boston, Mass., at a meeting of the Stark County Medical Society, Thursday evening, March 9, at the Elks' Club, Canton. Dr. Cattell gave a 15-minute broadcast on "Goiter" over Station WHBC, Canton, on the same evening.—Clair B. King, M.D., secretary.

SUMMIT

Dr. F. A. Smith spoke on "Diabetes" at a meeting of The Summit County Medical Society, Tuesday evening, March 7, at The Mayflower Hotel, Akron. Dr. O. P. Allen was the discussant. The society approved an increase in dues from $10 to $12 effective in 1940, to meet the proposed increase in State Association dues from $5 to $7. It also approved the proposed redistricting of the Councilor Districts of the State Association. —Bulletin.

Seventh District

(COUNCILOR: C. W. KIRKLAND, M.D., BELLAIRE)

COLUMBIANA

The Columbiana County Medical Society held a meeting on Tuesday evening, March 14, at Lisbon. The guest speaker, Dr. O. P. Kimball, Cleveland, discussed "The Social and Medical Study of Epilepsy, together with a Critical Study of the Use of Dilantin".—J. W. Schoolnic, M.D., secretary.

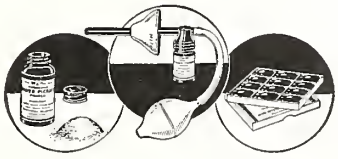
TUSCARAWAS

Dr. Roy Barnwell, Akron, discussed "The Relation of the Endocrine Glands to Growth and Sex Functions", at a meeting of the Tuscarawas County Medical Society, Thursday, March 9, at

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Twin City Hospital, Dennison. An elegant lunch was served after the program.—James A. McCollam, M.D., correspondent for *The Journal*.

Eighth District

(COUNCILOR: E. R. BRUSH, M.D., ZANESVILLE)

ATHENS

Dr. Judson D. Wilson, Columbus, was the guest speaker at a meeting of the Athens County Medical Society, Tuesday, March 7, at the Nelsonville Methodist Church.—News clipping.

GUERNSEY

Dr. Arthur G. Ringer led a discussion of "Appendicitis" at a meeting of the Guernsey County Medical Society, Thursday afternoon, February 16, at the Berwick Hotel, Cambridge.—News clipping.

MORGAN

Morgan County Medical Society is sponsoring a number of educational public meetings this year. The first, on March 8, in the McConnelsville High School auditorium, was addressed by Dr. George T. Harding, Columbus, on "The Mental Health of our Children". The Schoolmaster's Club, University Women's Club and the Mother's Club attended this meeting and were very well pleased with Dr. Harding's presentation of the subject.—Edgar Northrup, M.D., secretary.

MUSKINGUM

Dr. W. B. Faircloth spoke on "Non-Surgical Abdominal Pain", at a meeting of the Muskingum County Academy of Medicine, Wednesday evening, March 1, at the University Club, Zanesville.—Beatrice T. Hagen, M.D., secretary.

WASHINGTON

"Progress in Orthopedic Surgery" was the subject presented by Dr. A. R. Lutz, Parkersburg, W. Va., at a well-attended meeting of the Washington County Medical Society, Wednesday, March 8, at the Wakefield Hotel, Marietta. Dr. Lutz referred particularly to the treatment of fracture of the hip by the use of the Smith-Peterson pin method. He reported a number of cases, and demonstrated progress by X-ray follow-up. Dr. J. F. Weber discussed "Health Insurance".—David Sauer, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

Dr. Frank C. Andrus, Springfield, spoke on "Significance of Common Symptoms of Nephritis" at a meeting of the Hempstead Academy of Medicine of Scioto County, Monday evening, March 13, at Portsmouth General Hospital.—W. M. Singleton, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs during March:

March 6—"Refractory Anemia", by Dr. Lowell Erf, Rockefeller Institute, New York City.

March 20.—"An Interesting Case History", by Dr. John Dudley Dunham; "Functional Medicine in Its Relation to Dermatology", by Dr. Louis L. Praver; "Contact Dermatitis", by Dr. Frank J. Lacksen; "Physical Therapy in Dermatology", by Dr. Burton F. Barney; "Acne Vulgaris", by Dr. Joseph H. Shepard.

March 27—Section in General Medicine. At State Bureau of Juvenile Research. "Function of Bureau of Juvenile Research", by C. H. Calhoon, Ph.D., executive psychologist, Bureau of Juvenile Research; "Child Guidance", by Dr. Leonard M. Dub, psychiatrist for the Bureau.—Bulletin.

KNOX

Dr. A. J. Renshaw, Cleveland, spoke on "Gastroscopy" at a meeting of the Knox County Medical Society, Thursday noon, February 23, at Mt. Vernon. Dr. C. C. Sherburne, Tenth District Councilor, explained some of the legislative proposals in which the medical profession is interested.—News clipping.

MORROW

Following dinner, Tuesday evening, March 14, at The Globe Hotel, Mt. Gilead, Hon. Phil H. Wieland, Judge of the Common Pleas Court of Morrow County, spoke at a meeting of the Morrow County Medical Society on "Medical Jurisprudence". Local dentists and lawyers also heard Judge Weiland's interesting address.—T. Caris, MD.. secretary.

District Physician Examinations

At the request of the Cincinnati Board of Health, the Cincinnati Civil Service Commission will hold an examination for district physician in Room 260, City Hall, Cincinnati, Wednesday, April 19, at 9 A.M. The requirements are as follows: Male over 25 years of age and under 50; graduate of a recognized college of medicine. The duties: Visit and prescribe for the sick poor; maintain surveillance over communicable diseases; routine physical examinations; vaccinate indigents who may apply; examination of infants and pre-school age children in connection with infant welfare work; make epidemiological surveys of communicable diseases; school inspection. The entrance salary is $2,640; top salary, $3,180 per annum. In addition $20 per month is allowed for transportation.

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Lectures on Social and Economic Aspects of Medicine Presented at Western Reserve University

Western Reserve University School of Medicine is presenting a series of lectures on the "Social and Economic Aspects of Medicine", during March, April and May. Although primarily arranged for medical students, these forum discussions are open to the medical and allied professions and to interested laymen. The course is divided into three parts: "A Dynamic Society Encounters Medical Problems"; "The Medical Billion and Where It Goes"; "Democracy Feels Its Way".

The following lectures were presented during March: "Sickness and Disability as a National Problem", by Dr. Richard A. Bolt, director, Cleveland Child Health Association; "The Wake of the Machine", by Dr. George F. Sykes, medical director, White Motor Company; "Science Advances: Adequate Medical Care Today and Yesterday", by Dr. Roscoe D. Leas, clinical instructor in medicine, Western Reserve University School of Medicine; "The Public's Bank Account", by Howard Whipple Green, secretary, Cleveland Public Health Council; and "The Physician and Dentist", by Dr. Hubert C. King, president, Cleveland Academy of Medicine, and Carl J. Stark, D.D.S., past-president, Cleveland Dental Society.

Remaining lectures on the program are:

Tuesday, April 11, 5:00-6:00 P.M. "The Pharmacist and Pseudopharmacist", by Edward Spease, B.S., Pharm. M., Dean, Western Reserve University School of Pharmacy.

Friday, April 14, 5:00-6:00 P.M. "The Nurse and Hospital", by Marion G. Lowell, R.N., M.Sc., Dean, Western Reserve University School of Nursing, and Dr. E. L. Harmon, assistant director of administration, University Hospitals.

Tuesday, April 18, 5:00-6:00 P.M. "Two Hundred Years of American Medical Quacks, Cults and Sects", by Frederick C. Waite, Ph.D., professor of histology and embryology, Western Reserve University School of Medicine.

Friday, April 21, 5:00 to 6:00 P.M. "Public Health in Prospect and Retrospect", by Dr. Howard C. Stewart, tuberculosis controller, Cleveland and Cuyahoga County Boards of Health.

Tuesday, April 25, 5:00-6:00 P.M. "The American Medical Association Views Health Insurance", by Dr. Morris Fishbein, editor, The Journal of the American Medical Association, Chicago, Ill.

Friday, April 28, 5:00-6:00 P.M. "Voluntary Prepayment Plans for Medical Care in the United States", by H. Van Y. Caldwell, executive secretary, Cleveland Academy of Medicine.

Tuesday, May 2, 5:00-6:00 P.M. "Group Medical Care for Low-Income Farm Families", by Dr. Ralph C. Williams, medical director, Farm Security Administration, Washington, D. C.

Friday, May 5, 5:00-6:00 P.M. "The Medico-Social Aspects of Workmen's Compensation", by Dr. Sidney McCurdy, supervisor, medical section, State Industrial Commission, Columbus.

Tuesday, May 9, 8:15 P.M. "Medical Care for the Nation", by Dr. C-E. A. Winslow, professor of public health, Yale University School of Medicine, New Haven, Conn.

Lectures are given in the auditorium of the Institute of Pathology, Western Reserve University, except those on April 25, May 2, and May 9, which will be given in the auditorium of the Cleveland Medical Library.

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U. S. Civil Service Examinations

The United States Civil Service Commission has announced an open competitive examination for the position of associate medical officer, general practice, U. S. Veterans' Administration, at a salary of $3,200 per year, subject to deduction toward a retirement annuity. A further deduction of at least $480 per year will be made for quarters, subsistence and laundry when furnished by the Government. Unless entitled to preference because of military or naval service, applicants must not be over 40 years of age, and must have graduated from a recognized medical school subsequent to May 1, 1934. Applications must be on file with the U. S. Civil Service Commission not later than April 10. Necessary forms and additional information may be obtained from the secretary, Board of U. S. Civil Service Examiners, at any first-class post office, from the U. S. Civil Service Commission, Washington, D. C., or from the U. S. Civil Service District Office, U. S. Post Office, Cincinnati.

District of Columbia P-G Assembly

Annual Scientific Assembly of the Medical Society of the District of Columbia will be held at the Mayflower Hotel, Washington, D. C., Tuesday, Wednesday, and Thursday, April 25, 26 and 27. Gastroenterology in all its phases will be the subject covered. Reservations are being taken by Theodore Wiprud, secretary of the society, 1718 M. St., N.W., Washington, D. C., who will forward full information on request.

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(1) 1937. Am. J. Digestive Diseases, Nutr. 4, 240.
(2)a. 1933 J. Am. Diet. Assn. 9, 295.
b. 1934. J. Nutrition 8, 449.
(2)c 1936. Ibid. 12, 405.
d. 1936. J. Am. Diet. Assn. 12, 231.
(3) 1932. J. Pediatrics 1, 749.
(4) 1938. Am. J. Diseases Children 55, 1158.

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The Physician's Bookshelf

A Short Story of Cancer of the Breast and Cancer of the Uterus. By Marion Ellsworth Anderson, M.D. *Franklin Press, Clinton, Iowa.* How often have each of us wished for a pamphlet to give to our patient about some important topic. Dr. Anderson of Clinton, Iowa, has done this to his own satisfaction and that of the reviewer for cancer of the breast and uterus. Photomicrographs, however, do seem a bit out of place in a work for this purpose.

Celsus; **De Medicina**, Cambridge, *Harvard Press, Cambridge*, $2.50. Leather, $3.50. The second and third volumes of the Loeb Classical Library edition of Celsus contains Dr. Spencer's excellent translation of De Medicine, Books V, VI, VII, and VIII with notes and parallel passages in Hippocrates and Celsus. The high standard in both scholarship and readability of the first volume has been maintained.

How to Conquer Constipation. By J. F. Montague, M.D. *Lippincott, Philadelphia*, $1.50. A second book on constipation has appeared from the pen of the same New York proctologist. This one answers for the layman the question which have been asked this specialist by his patients. These are all of the orthodox ones, including diets, drugs, exercises, and methods of living. The style is readable.

The Secret of Sinusitis and Headaches. By Lucius M. Bush, D.O. *Liveright, New York.* $1.00. It is often of interest to get the other fellow's viewpoint and to those who are interested in disorders of the nose and throat this book does just that. To one trained in allergy the underlying concepts of infection and hypersensitiveness appear truly remarkable. Based upon anatomical concepts, the author presents for the lay public his operation or manipulation for adjusting the bones of the nose to make for the free passage of air.

Biology and Pathology of the Tooth and Its Supporting Mechanism. By Bernhard Gottlieb of Columbia Dental School; Baliant Orban of Northwestern. Translated and edited by Moses Diamond of Columbia, *Macmillan, New York*, $5.00. This is an attempt to present the results of 15 years of research abroad to the American dentists. The concepts of continuous deposition of cementum as a physiologic process and of the tooth as the vital organ to the needs of which the immediate surrounding and supporting tissues are subservient is here brought to the attention of the practicing profession as well as the dental student of today.

Legal Aspects of Christian Science. By I. H. Rubenstein of the Chicago Bar. *The Crandon Press*, 3555 Ogden Ave., Chicago. $1.00. This 33-page booklet contains a good analysis of the unusual legal aspects of Christian Science.

The Healing Knife; A Surgeon's Destiny. By George Sava. *Harcourt, Brace, New York*, $2.50. The story of a man beginning as a seventeen-year old lieutenant in the demoralized White Russian Navy and passing on as a homeless refugee from Caspian to Constantinople, determined to become a surgeon some day. In Sofia, where he learned dissection in the morgue at night while working as a stoker. To Paris as a waiter. To Florence, next, where he was given his degree with the highest honor. After a tragic love affair, he again became a wanderer, living with the gypsies in Andora. He is brought to himself and goes to Germany where by brilliant achievements he carries out his original plan of establishing himself in England as a surgeon.

Osler's Principles and Practice of Medicine, Christian—13th Edition, 1938. *Appleton-Century Company, New York*, $9.00. No writings of Osler or Christian need a review. Their incomparable knowledge of medicine needs no criticism. Instead it was decided to compare the present volume with the original "Osler". The reviewer, unable to obtain a first edition of this great work, has compared it with the third edition published just 40 years ago, which has been graciously lent to him by Dr. J. J. Coons whose text it was when he was a student himself of William Osler. The present edition contains 1,391 pages compared to 1,150 pages in that of 1898. The index of both books is almost identical. Osler discussed typhoid fever

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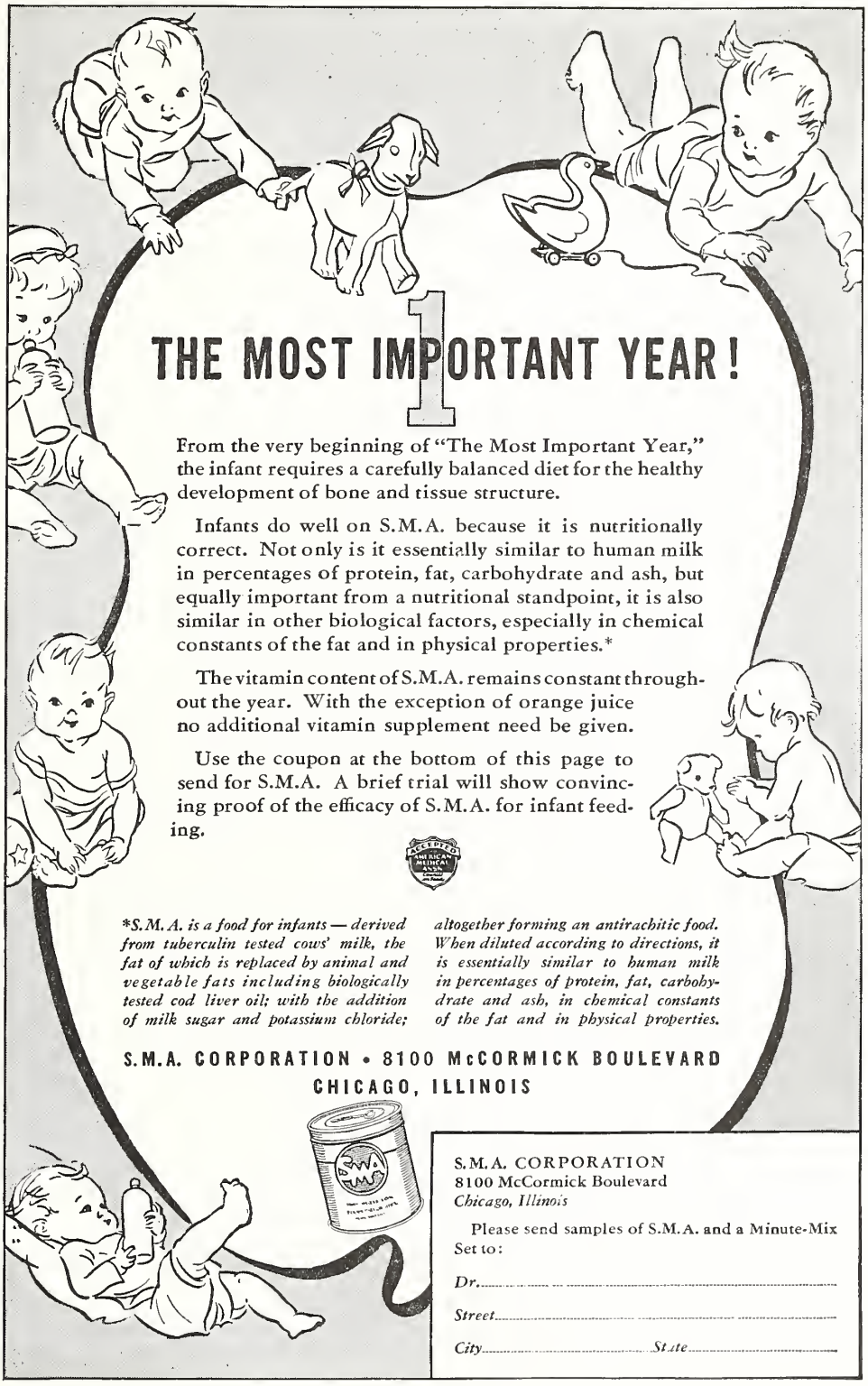
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in the first 48 pages of his book, whereas Christian discussed typhoid fifteenth in the list of specific infectious diseases. In 1890 the death rate from typhoid for the United States was 46.27 per 100,000 population. In 1936 it was 2.6. The recommendations for treatment in both books are almost identical; a veritable triumph of public health. Christian discusses pneumonia first in his edition because it continues to be the "captain of the men of death" among acute infections. Osler quotes a mortality rate of 187 per 100,000 of population and Christian quotes 93 per 100,000 in 1936. However, Christian mentions the halving of this rate in all serum treated cases which we consider the "new and modern" method. It is of interest to quote from the older book; "Washbourn has obtained large quantities of serum by immunizing ponies, but, so far as I can ascertain, a trustworthy anti-pneumococcic serum is at present not in the market." Almost none of the original flavor of the older book has been lost and much that is new has been added without seeming to intrude. Christian has continued its traditions. —Robert C. Kirk, M.D.

The Scientist in Action. By Wm. H. George. *Emerson Books, New York,* $3.00. The greatest recommendation for this book is the fact that it is the choice of both American and British scientific book clubs. It presents a new view of the research worker as the human element in the equation of scientific results.

Babies Are Human Beings. By C. Anderson Aldrich and Mary M. Aldrich. *Macmillian, New York,* $1.75. The senior author is associate professor of pediatrics at Northwestern, and this book is the result of his course on the growth and development of children. The reader is taught to think of babies in terms of their progressive growth changes. This objective has been attained in so far as the written word can form the basis of thought in its reader.

Have You Had Your Vitamins. By Harry N. Holmes, Ph. D. *Farrar & Reinhart, New York,* $1.00. The professor of chemistry at Oberlin College, himself an authority of their chemistry, has written an attractive popular text setting forth what is known and not known about these vital food elements. It contains much information which is value as a protection against the health racketeer.

Boy or Girl? By D. H. Sandell, M.D., F.R.S.C.S. *Fortuny's, New York,* $1.50. This book advances the evidence that the chemical reaction of the vaginal secretion determines by its effect on the sperm the sex of the child should fertilization occur.

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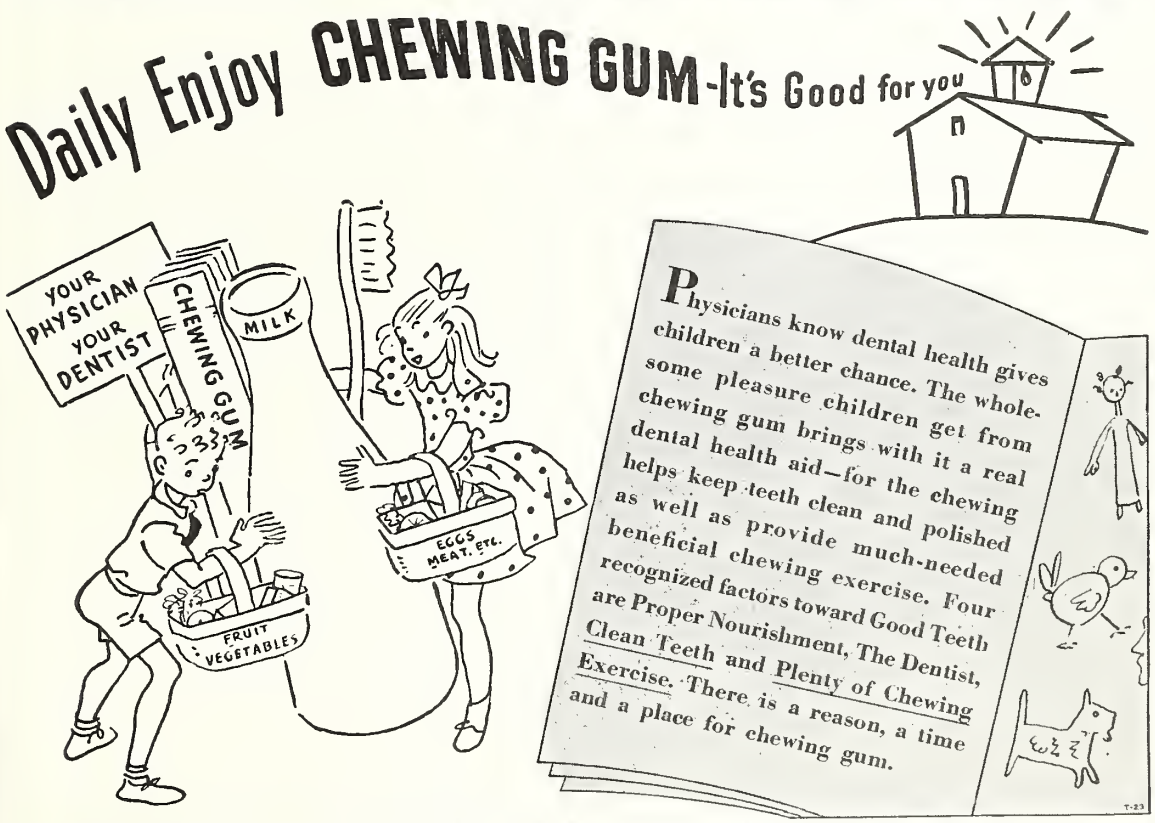
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News Notes

Akron—Compulsory health insurance was assailed by Dr. C. F. Wharton at a recent meeting of the Optimists' Club.

Alliance—Dr. F. Paul Bennett spoke on "Social Diseases" at a recent meeting of the Salem Junior Chamber of Commerce.

Bellevue—"My Impressions of Europe", was the topic of an address made by Dr. J. I. Appleby at a recent meeting of the Lutheran Brotherhood.

Canton—Dr. W. E. Brogden has been elected a Fellow of the American Academy of Orthopaedic Surgeons.

Chillicothe—"Pre-operative and Post-operative Care" was the subject discussed by Dr. Harold M. Crumley at a recent district meeting of the Ohio State Nurses Association.

Cincinnati—Dr. Henry M. Goodyear will deliver four lectures on nasal sinus conditions and treatment, and give cadaver demonstrations of nasal sinus, mastoid, labyrinth and petrous operations at the Annual Postgraduate Course to be given at Roanoke, Va., during the first week of April.

Cleveland—Dr. Myron Metzenbaum has been named a member of the Founders Group of the American Board of Plastic Surgery.

Columbus—Dr. Dan G. Sanor is the new president of the Mercator Club.

Dayton—At a recent meeting of the local B.P.O.E. Lodge, Dr. J. Grant Marthens presented a talking picture on "The Science of Modern Medicine".

East Liverpool—The attitude of the medical profession on compulsory health insurance and the proposed national health program was explained by Dr. J. W. Schoolnic at a recent meeting of the Kiwanis Club.

Fayetteville—Dr. Ralph F. Wilkins has been appointed county commissioner of Brown county, succeeding Dr. W. L. Faul, Sr., new county auditor.

Fremont—For outstanding service to youth and scouting, Dr. C. I. Kuntz was recently given the Silver Beaver award, highest recognition for volunteer Boy Scout leaders.

Granville—Dr. Geraldine M. H. Crocker spoke on "Women in Medicine" at a recent meeting of the Halycon Literary Club, Columbus.

Greenville—The name of the local hospital has been changed to "Wayne Hospital" in honor of General Anthony Wayne, signer of the treaty of old Fort Greene Ville which paved the way for the early colonization of Darke County.

Hamilton—The enlarged obstetrical department

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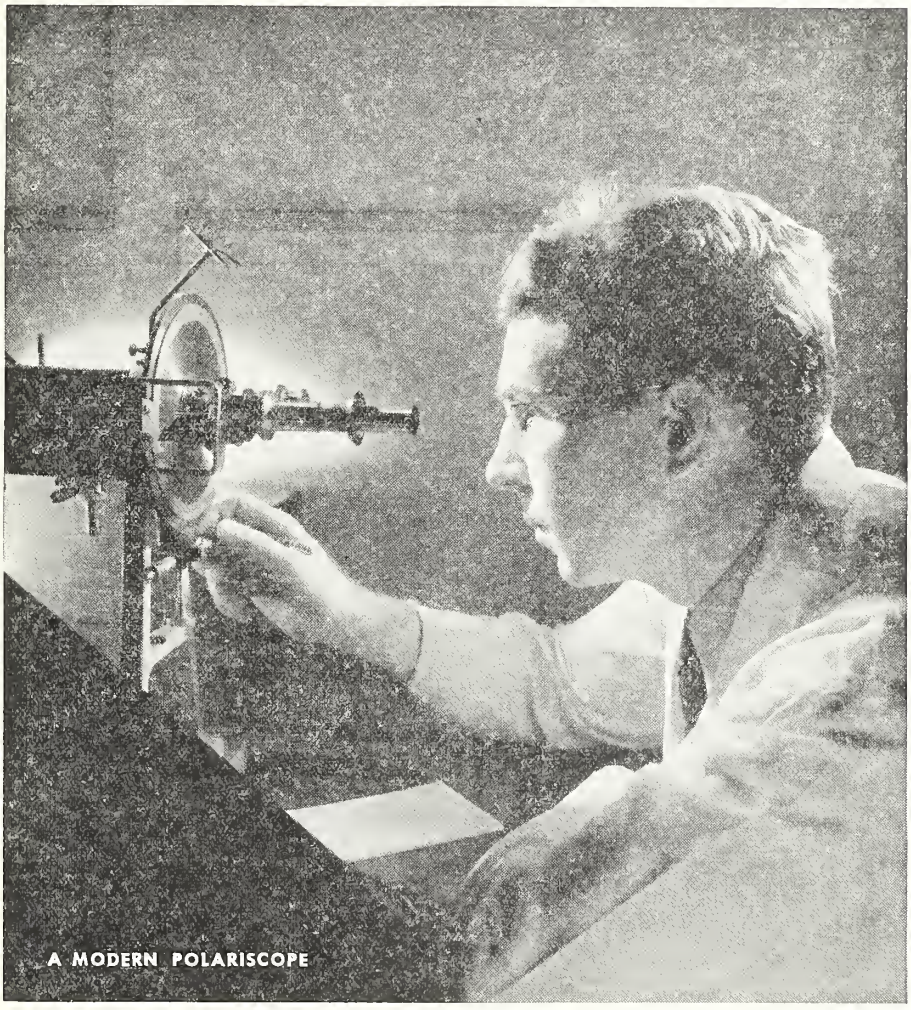
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of Mercy Hospital is expected to be ready for occupancy early in April.

Lima—Memorial and St. Rita's Hospitals have been accredited for intern training by the Council of Medical Education and Hospitals of the American Medical Association.

Lorain—Officers of St. Joseph's Hospital medical staff for 1939 are: Dr. Birt E. Garver, president; Dr. Clarence H. Frederick, vice-president, and Dr. John Marsico, secretary-treasurer.

Lorain—"Serum Treatment of Pneumonia" was discussed by Dr. Valloyd Adair at a recent meeting of St. Joseph's Hospital Nurses Association.

Mansfield—The disadvantages of governmental control of medicine were outlined by Dr. W. E. Wygant at a recent meeting of the C. H. Huston class of the Park Avenue Baptist Church.

Massillon—Dr. Harold J. Gordon, Akron, spoke on "Modern Trends in Social Hygiene Education", at a recent meeting of the local Social Hygiene Society.

Oberlin—Dr. L. H. Trufant, secretary of the Lorain County Medical Society, spoke on "State Medicine" at a recent meeting of the Elyria Young Men's Club.

Painesville—Dr. T. M. Moore has completed his 61st year in the practice of medicine in this community.

Portsmouth—"Socialized Medicine" was discussed by Dr. W. H. Sisson at a recent meeting of the Exchange Club.

Springfield—Dr. D. W. Hogue explained why a system of socialized medicine would not be acceptable to the American public at a recent meeting of the Junior Chamber of Commerce.

Toledo—"The Great Masquerader" was the topic discussed by Dr. A. P. R. James at a recent meeting of the Perrysburg Exchange Club.

Toledo—Dr. B. S. Dunham is the new president of the Toledo Public Health Association.

Troy—Dr. S. N. McCurdy, supervisor, medical section, State Industrial Commission, spoke on "The Workmen's Compensation Act" at a recent meeting of the Rotary Club.

Uhrichsville—Dr. J. A. McCollam recently celebrated the 49th anniversary of his entrance into the practice of medicine.

Warren—Dr. P. J. Fusco was the speaker at a recent meeting of the Good Samaritan Guild.

Youngstown—The viewpoint of the medical profession was explained by Dr. Walter K. Stewart at a recent public forum discussion on "Socialized Medicine versus Private Practice" at First Unitarian Church.

Youngstown—Dr. Samuel H. Sedwitz recently addressed the Muncie, Indiana, Academy of Medicine on "Peripheral Vascular Disease".

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Vol. 35 MAY, 1939 No. 5

JONATHAN FORMAN, M.D., *Editor*

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GEORGE H. SAVILLE, *News Editor*

Prognosis and Management of Heart Disease and Pregnancy

HUBERT C. KING, M.D.

IT may be of interest and help to others to set down our experiences with these problem patients and to correlate our observations with the best work available in a relatively large literature. An obstetrical patient with heart disease presents two problems: First, we must consider the immediate effect of the pregnancy upon the heart and must estimate the risk involved. We must also determine the possible effect of the pregnancy on the future course of the heart disease.

These patients come to the physician under various conditions. The patient may not be pregnant, but may come asking if pregnancy can be safely undertaken in the presence of her heart lesion. There may have been one or more previous pregnancies without a living child. Finally, we may see patients with one, two or three living children. If the patient is pregnant when she seeks advice the pregnancy may be in its early weeks or it may be well advanced. If the heart lesion is, serious one would be more likely to recommend termination of the pregnancy if it is very early than if it were advanced to five or six months when abortion would entail about as much heart strain as labor. At this late date the chances of obtaining a living child must also be considered. The responsibility is usually greater when the patient is not already pregnant and asks if pregnancy may be considered. The problem is easiest when there are two or three living children. Three children form an ideal family and two children furnish a safeguard not supplied by one child, whose death may leave the parents childless. The economic status of the family should influence the physician's judgment, because it is often more work to raise and care for several children without help than it is to bear them. The hard work during their infancy and childhood may well break down the slender cardiac reserve.

Patients with pregnancy and heart disease fall into a fairly limited age group and, because of this, when heart disease is encountered it is usually rheumatic heart disease. Rarely we meet with congenital heart disease, especially some of the lesser defects, or with essential hypertension. Luetic heart disease is rare and probably fortunately. Occasionally we may find pregnancy in the presence of toxic goiter. In the last few years we have three times seen pregnancy in cases of subacute bacterial endocarditis. Lastly, we must consider pregnancy in recent cases of acute articular rheumatism, with or without endocarditis. Because of its greater frequency our

The Author

● Dr. King, Lakewood, Ohio, is a graduate of Western Reserve University School of Medicine, 1914; fellow American College of Physicians; director of medicine, Fairview Park Hospital, Cleveland, Ohio.

Submitted March 6, 1939, at request of Editor.

most important problem is found in the association of pregnancy and rheumatic heart disease.

CLASSIFICATION

As early as 1921 MacKenzie set down certain opinions which differ only slightly from those held today.

1: Patients with auricular fibrillation did not do well in pregnancy.

2: When cardiacs died in pregnancy they died of congestive failure.

3: The earliest sign of such failure is persistent rales at the lung bases. (After Jensen)

Pardee proposed a classification in 1922 which was widely accepted and which differed but little from that later recommended by the American Heart Association. This we heartily recommend to you as a definite aid in deciding your conduct of any given case.

Class 1: Patients suffering from organic heart disease, able to carry on ordinary physical activity without discomfort.

Class 2: Patients suffering from organic heart disease, unable to carry on ordinary physical activity without discomfort.

a—Activity slightly limited
b—Activity greatly limited

Class 3: Patients suffering from organic heart disease showing definite symptoms of heart failure when at rest.

Class 1 and 2a—Good prognosis; Class 2b—Guarded prognosis; Class 3—Poor prognosis.

Before we consider specific lesions of the heart let us note certain general conditions. Many of these observations apply to the general problem of prognosis in heart disease.

It has been noted that the larger the heart the more serious and extensive the damage. As Harrison has pointed out the large heart is an inefficient heart, while Levine wrote "The larger the heart, other things being equal, the poorer the prognosis".

AURICULAR FIBRILLATION

Since the days of MacKenzie auricular fibrillation has been almost universally regarded as a serious complication of pregnancy. It has appeared to us that, of late, there has been a tendency to regard this arrhythmia too lightly. In women of the age group we are considering fibrillation is largely due to rheumatic heart disease and usually to mitral stenosis. You may be sure that its presence indicates serious damage to the heart. We admit that one sees cases of paroxysmal fibrillation, rarely with no evidence of clinical heart disease and, at times, associated with hyperthyroidism. In these cases, of course, the prognosis is quite different. We are concerning ourselves, at present, with auricular fibrillation associated with organic heart disase. In such cases the duration of life after the onset of fibrillation is often not over two years. This in itself should influence our attitude toward pregnancy for a child born to such a patient will surely be left without a mother before it is out of childhood.

If the auricular fibrillation responds to digitalis so that the ventricular rate may be kept in the seventies and, if exertion does not cause marked dyspnea or excessive tachycardia, the outlook is as favorable as it can be under the circumstances.

If a patient with fibrillation presents herself and asks if pregnancy should be undertaken the answer should always be "no". If the patient is seen in the early weeks of pregnancy a therapeutic abortion should be performed in most cases. If the desire for a child is great and the parents are fully aware of the risk involved and if the cardiac reserve seems good and if the ventricular rate can be controlled with digitalis continual watchfulness may carry the patient safely through. Before any anesthetic is administered or any operative procedure is undertaken the patient should receive digitalis so that the ventricular rate is about 70.

If the patient is first seen with pregnancy well advanced one has no alternative but to give the patient the best care with digitalis and rest to the degree recommended in the presence of congestive failure later on.

Of other arrhythmias found during pregnancy, premature contractions are, of course, the most common. They have the same significance here as elsewhere. By themselves, they are not indicative of heart disease and need not be given special consideration in the problems of pregnancy.

Partial or complete heart block may be encountered occasionally. It may be due to congenital heart disease with a ventricular septal defect with the involvement of the His bundle. We may find any degree of block from lengthening of the P-R interval (A-V conduction time) in the electrocardiogram to complete heart block. In the past year we have seen, in consultation with their obstetricians, a case with marked prolongation of the P-R interval and one of complete heart block, both of which were known to have been present since early childhood and which were probably congenital and due to ventricular septal defects. Both patients went through pregnancy without difficulty. Fortunately we do not often encounter pregnancy in the presence of far advanced essential hypertension. We do, however, find a situation rather often which merits a very serious discussion.

HIGH BLOOD PRESSURE

For a great many years, cases were recognized which showed during pregnancy a considerable elevation of blood-pressure, with or without

albumin in the urine. These were considered as toxemias of pregnancy. As Williams wrote at that time "Most cases with increased blood pressure and albuminuria have a 'low reserve kidney', a transient, functional renal insufficiency, brought about by the strain of pregnancy". The statements which follow probably do not take into consideration all the etiological factors, but emphasizes what we feel is a new and important conception. Our present day viewpoint of these cases may be said to have originated largely in the work of Herrick at the Sloane Hospital, Kellogg in Boston and Wegner and Jensen in St. Louis. They were able to show that pregnancy may aggravate an existing hypertension and also may be the instituting factor in a person who has a constitutional predisposition to it. Dr. Herrick and his associates carried their studies farther and were able to show the permanent deleterious effect of pregnancy on patients with hypertension. Of 594 patients who had a hypertension during pregnancy 90, or 15.7 per cent died during the following 5-2/3 years. Among this group the average annual death rate was, therefore, 2.7 per cent while in a similar age group the annual death rate was 0.4 per cent. Of the fatal cases 80 per cent died of cardiovascular-renal disease. From these and other studies we are convinced that the increase in blood pressure attributed to pregnancy and essential hypertension are both manifestation of the same underlying constitutional predisposition. In this view the emphasis is placed on the importance of constitutional disposition rather than on some intoxication or toxemia, the result of the pregnant state. Once a hypertension develops during pregnancy it has been shown that the health of the individual and the expectancy of life are affected unfavorably.

In the presence of hypertension one should keep these facts in mind in advising pregnancy or permitting it to continue. Perhaps we may do some preventative medicine as regards the development of hypertension by closely watching the effects of the early weeks of pregnancy in any patient with a family history of hypertension or a tendency for the blood pressure to be above the average. My experience in cases seen in consultation is quite in keeping with the experience of Herrick and his associates and those patients I have seen with a considerable elevation of blood pressure during pregnancy have usually maintained an elevated pressure later and have died before their time of cardiovascular disease. Some have been well for several years and later have developed prematurely a hypertension, indicating a predisposition to such a condition.

BACTERIAL ENDOCARDITIS

Fortunately the association of pregnancy and subacute bacterial endocarditis is not common. It is probable that about 1 per cent of all obstetrical cases with heart disease have this serious complication. Not many authentic cases, judged by our present day standards, have been studied, although the first case was probably described by Lohlein in 1876. In 1885 Osler laid the foundations of our modern conception of this condition. Previously it was regarded as secondary to a focus of infection and was supposed to be due to some type of puerperal infection. Beside describing most of our present clinical conceptions of this malady, Osler was able to show that it might exist quite independent of any puerperal sepsis.

For some time it has been felt that pregnancy has some effect in activating a subacute bacterial endocarditis. We have seen two cases in which none of the symptoms developed until shortly after delivery. From then on the down hill course was very rapid. It seems probable that pregnancy and delivery must, in some way, break down a barrier and allow the development of the blood stream infection. Regarding the practical application of these facts, let us urge the obstetrician to keep in mind the possibility of subacute bacterial endocarditis in any case of unexplained fever postpartum known to have rheumatic heart disease.

It seems to us there is little room for argument in regard to treatment in these cases. We are dealing with an almost universally fatal disease and, even if the patient could be carried to a successful termination of her pregnancy, her baby would surely be left without a mother before it was out of infancy.

RHEUMATIC HEART

As stated in our introduction, most cases of heart disease during pregnancy will be due to rheumatism. The incidence of rheumatic heart disease amongst white women of childbearing age is probably about 1 per cent. Some methods of estimating the incidence place it considerably higher.

The death rate from rheumatic heart disease places it as an important cause of death in pregnancy. It is declining because of better management. Until recently it was responsible for a mortality rate of 8 to 10 per cent, now being reduced to about 2 per cent. Heart disease is among the first four or five important causes of maternal death and probably accounts for about 7 per cent of all fatalities.

For many years attempts have been made to classify patients with rheumatic heart disease as regards the seriousness of their problem on the basis of specific valve involvement or impairment of function. As early as 1894 Sears suggested such a prognostic classification. We wish to emphasize again the value of applying

to your patients the classification of the American Heart Association we have presented.

Since the days of MacKenzie mitral stenosis was supposed to be an especially serious lesion. Intensive study in America and in France and Germany has resulted in conflicting views, with the consensus of opinion being that mitral stenosis is an especially serious valvular lesion in the presence of pregnancy. The combination of mitral and aortic lesions adds very greatly to the gravity of the situation. These cases are ones with an extensive rheumatic scarring of the heart and the findings indicate that the damage to the heart has been severe.

THE CAUSE OF DEATH

We must now consider the cause of death in those patients who die during pregnancy or the puerperium because of their heart disease. It appears from dependable statistics that there is, at present an irreducible mortality of 2.5 per cent in pregnant women with heart disease, which is ten times the rate in women without heart disease. By far the largest number die from congestive failure. It is the cause of death in at least 70 per cent of the cases. A large number of the remainder die from pulmonary edema. Of patients with congestive failure 25 per cent formerly succumbed, but by improved methods of care this has been reduced to about 8 per cent.

Most deaths from congestive failure occur during pregnancy, but one must remember that many of these patients deliver prematurely. It is probable that the largest number of patients experience their greatest difficulty about the seventh month and that most of the patients (75 per cent) died during puerperium and that only 25 per cent die undelivered. These figures are entirely dependent upon the fact that so many patients deliver prematurely.

Congestive failure is usually manifest in the sixth, seventh and eighth months. Rarely does it begin in the last few weeks of the pregnancy or during labor if failure was not manifest before. Those dying from congestive failure after labor showed signs of such failure before. In a patient who is a candidate for congestive failure there are a few very definite factors which may turn the tide against her.

Fatigue should probably head the list of factors predisposing to congestive failure. Many women in this group have been advised to walk or otherwise to exercise to keep up muscular tone, when they should have been restricting their activities to a minimum. Entertaining or being entertained, tiresome shopping trips or the fatigue of caring for some ill member of the family may increase the load on the heart so that failure quickly follows. The patient with heart disease should be advised that rest and not exercise is most important. The amount and degree of rest imposed will depend upon the degree of impending or existing failure.

Referring again to the classification of the American Heart Association, we may state that patients in Class 1 should be carefully watched and their activities restricted to those most necessary. They should be relieved of the harder part of their work, when possible, and should have a long noon-day rest or even every week-end in bed.

Those in the Class 2 division should be at rest the larger part of the time. In patients asking if pregnancy is permissible, one should consider it seriously in those in the (a) subdivision and forbid it in the (b) subdivision. If pregnancy is detected very early it should be terminated in the latter group. In case pregnancy is well advanced, rest should be strictly enforced and, in the latter group, it may be necessary to keep the patient at complete rest in bed during the latter weeks of pregnancy. In the patients of Class 3 pregnancy should never be permitted and, if the patient presents herself too late for abortion, she should be kept in bed almost continuously and digitalis administered to control the failure.

A second important factor in precipitating failure is an intercurrent infection and this usually means an infection of the respiratory tract. In any of these patients a simple "cold" or a sore throat should be taken seriously and the patient put to bed immediately.

A factor of perhaps lesser importance in favoring congestive failure is a gain in weight. This, of course, puts an added load upon the heart. Such a gain can usually be controlled by diet restriction. Anemia may be another infrequent cause.

When congestive failure is present at any stage of pregnancy relief of failure by rest and digitalis must be accomplished before any type of delivery is attempted. Do not deliver a patient without this preparation in the hope that lifting the load of pregnancy will relieve the heart. It is far better to relieve the failure as far as possible first and then the delivery may be accomplished much more safely. Our experience leads us to stress this point.

There has been much discussion as to when interruption of pregnancy should be advised. It is not performed as frequently as formerly and should rarely be necessary, for a woman should not undertake pregnancy unless she is capable of safely carrying through. With our improved understanding of the problem and an increasing intelligence on the part of the public I feel we will be called upon to face this problem less frequently in the future. The problem will never be entirely eliminated.

The type of delivery recommended will, of

course, depend upon the degree of heart failure present.

For the patient in Class 1 of the American Heart Association in whom everything has been going well a delivery at term with anesthesia and low forceps will usually give good results. There has been some objection raised to the use of forceps, principally because of fear of the effect of the rapid change in intra-abdominal pressure. Our observations at Fairview Hospital and survey of the literature would seem to indicate that, with full dilatation, there is no harm and much benefit from this relief from the strain of the second stage of labor.

Patients with heart disease may develop sudden and great distress during labor as a result of some type of heart failure and the symptoms may be so severe as to cause the physician to consider the employment of drastic measures to conclude the labor. A study of the older literature shows that the use of "accouchement force" and of version and extraction resulted in disaster.

If immediate delivery is indicated before labor is far advanced and, if the case has been properly handled from the aseptic standpoint, Caeserian section is clearly indicated. If these indications are not fulfilled as rapid a delivery with forceps as is consistent with the degree of dilatation and with safety is the proper procedure. If the failure is of the congestive type rapid digitalization may be effected by giving the drug intramuscularly. The semirecumbent position during delivery may add greatly to the patient's comfort if orthopnea is present.

ACUTE PULMONARY EDEMA

Acute pulmonary edema may occur during labor. It is due to the formation of a vicious circle involving pulmonary congestion and respiratory stimulation resulting in increased ventilation. It is, in obstetrical cases, most common in mitral stenosis when this lesion obstructs the blood coming from the lungs. When the left auricle fails to overcome the obstruction the pulmonary circulation becomes overloaded. In a reported study of 135 fatal cases pulmonary edema occurred alone in one-third and as a complication of congestive failure in two-thirds of the cases.

Pulmonary edema is particularly prone to occur during labor and during the first 12 hours after delivery. This may be due to exhaustion of the left ventricle from the strain of labor. Some observers have attributed it to left ventricular failure plus the fall in blood pressure which occurs at this time. For some poorly defined reason pulmonary edema seems to be more frequent among young women and in primaparae. Possibly the seriousness of their heart disease results in this complication as soon as they are put to the test of pregnancy and labor.

Further as to treatment of this complication, let us recall to your mind that old and tried procedure which has fallen into relative disuse, namely, blood-letting. It has been suggested that amyl nitrate may give a similar effect, and, although, I have not seen it used, I think its possible value might be well to keep in mind. As in any case of pulmonary edema, morphine should be administered hypodermically, because of its depressing effect upon the respiratory center which helps to break the vicious circle between overaction of that center and the pulmonary congestion. At the same time digitalis may be administered intramuscularly, bearing in mind the dosage in relation to what may have been given by mouth during the days preceding. An oxygen tent, if readily available, may be of value. Perhaps with modern care our death rate will become lower, but all previous series show a mortality of 60 per cent for these cases.

If this complication occurs during pregnancy the outlook for continued pregnancy is not hopeless unless the pulmonary edema is a part of a congestive failure which does not respond to rest and digitalis. It is, however, very serious.

Finally, pneumonia seems to be an especially serious complication of heart disease and pregnancy. Occurring during the puerperium, about 50 per cent of the cases will die. Newer methods of treatment will probably reduce this percentage.

It is our hope that the practitioner, acting as the advisor to these cases, will so classify his patients that error will be minimized and that fewer patients will be permitted to undertake pregnancy who may not safely complete its obligation. When he must deal with the complication of heart disease and pregnancy we urge him to consider the great value of rest in these patients and to have under control congestive failure before he attempts to in any manner deliver his patients.

15701 Detroit Ave.

Mouth Lesions Associated With Dietary Deficiencies In Monkeys

Although the number of animals is relatively small, observations on *Macacus rhesus* monkeys are presented which indicate that certain of the dietary deficiencies tested are associated with the development of varying manifestations of gingivitis, stomatitis, periodontal disease, and noma. Comparable animals maintained on adequate diets showed little or no evidence of such oral pathology. In addition, monkeys maintained on a stock diet showed no evidence of gingivitis or stomatitis when material from affected monkeys was transferred directly to them.—N. H. Topping, M.D. and H. F. Fraser, M.D., Public Health Reports, Vol. 54, No. 11, March 17, 1939.

Notes on Goiter Patients: The Management of "Thyroid Crises" and Atypical Hypothyroidism

WM. M. SKIPP, M.D.

THE general surgeon is confronted many times with conditions which arise following a surgical procedure, which cannot be accounted for by the surgical operation just performed. The patient presents himself with a pathological condition which to all intents and purposes has no bearing in the least with thyroid disease. Painstaking history and complete physical examination disclose no evidence of any toxic condition of the thyroid gland. The gland is palpated, is normal in size and consistency or it may be slightly enlarged, firm, with granules throughout.

With this picture, the surgical procedure is undertaken, the surgeon never thinking he is going to have trouble with a thyroid crisis. Immediately following the starting of the anesthesia the pulse and respiration begin to mount and if the operation is continued this phenomena continues to be very annoying to the surgeon and aesthetist. Again, after the patient has been returned to his bed, within 6 to 36 hours after the operation, the pulse, temperature and respirations start to mount or remain high. As far as the surgeon can determine, it is too early for massive infection. If the patient is observed carefully the following signs and symptoms will be found: Restlessness to delirium; flushing; perspiring, signs of shock; temperature 104 to 107; pulse bounding, 120 to 180; respirations 24 to 40, shallow; some cyanosis; difficulty of oxidation; skin soft and velvety; stary-eyed; lids retracted slightly; pupils dilated; neck, definite fullness; thyroid, both lobes large (larger than before operation). This gland is soft, and may pulsate or may be sensitive to pressure, causing choking. The heart sounds are very pounding, as if the heart would come through the chest wall.

After one sees a number of these cases, diagnosis can be made without much trouble. The diagnosis should not be confused with pulmonary atelectasis. This condition has to be ruled out by physical findings and X-ray. But while this is being ascertained valuable time may be lost to the detriment of the patient. Time should not be lost, because in our experience this entity (thyroid crisis) must be treated at once. The treatment for post-operative thyroid crisis will not injure or interfere with the recognized procedures for atelectasis, loss of time in making a differential diagnosis should absolutely be avoided, a beneficial result in the treatment of crisis will not be forthcoming, and the devastating effect of this disease can not and will not be overcome.

In our hands the following course of treatment has proved to be of great value: Sufficient morphine to get the patient quiet and keep him thus. With this restlessness the patient becomes very apprehensive, much to his own detriment. Iodine in some form must be given this patient at once, such as 15 to 20 drops of Lugol's solution, sodium iodide grains 15, or colloidal iodine as may be found on the market in ampule form. This medication is given intravenously, remembering that it must be administered slowly. If Lugol's solution is used, 150 to 200 c.c. of intravenous saline should be used as the diluting agent. The ampule preparations are given slowly from the ampule. Massive doses of intravenous solutions such as glucose have not proved satisfactory in our hands as these solutions seem to counteract the desired effect of the iodine. Notwithstanding to the contrary that there is a definite need for fluids and carbohydrates due to the markedly increased metabolism, it must be remembered that intravenous glucose in particular carries reactions of high temperatures, rapid, thready pulse, which may be confused with a thyroid crisis. We insist that large quantities of fluids should be forced by mouth and by the subcutaneous route, these fluids carrying large amount of easily assimilated food. The iodine should be repeated every four hours if the symptoms continue. We have used as many as six to eight doses of intravenous iodine without apparent ill effects. If the stomach will tolerate Lugol's solution, it is added in addition to the intravenous iodine 10 drops every four hours. We have never seen untoward effects from what would seem over-dosing of iodine, but have felt

Submitted March 4, 1939, at request of Editor.

The Author

● Dr. Skipp, Youngstown, Ohio, is a graduate of Ohio State University College of Medicine, 1918; member Society for Study of Internal Secretions; fellow American College of Surgeons; fellow International College of Surgeons; advocate of American Board of Surgery; member of surgical staff, thyroid division, Youngstown Hospital Association.

we did not get complete iodination as quickly as possible with smaller doses, thus prolonging the disastrous effects of this serious toxic upset. Thus iodine is pushed to the limit.

If the diagnosis is definitely post-operative thyroid crisis, the temperature should be controlled with ice-packs, tepid baths, etc., and oxygen therapy for the cyanosis in whatever form convenient, nasal intubation, oxygen tent or any of its modifications. This will relieve the over-apprehensiveness of the patient because of air hunger and lighten the already overloaded cardiac muscle. This alone in many cases, without iodine therapy, will lower temperature and pulse to such an extent that the patient will relax and go to sleep. The heart should be supported with digitalis therapy by the intravenous or subcutaneous routes. In our hands, digitalis has given us very excellent results in slowing the pulse and supporting a failing cardiac muscle, even taking into consideration the adverse opinions of our good friends, the cardiologists, that digitalis is of no avail in post-operative heart conditions.

If food is needed, which it certainly is with the rapid burning process that is going on in this condition, and it can be taken by mouth this method should be used in preference to the intravenous route. But if the patient will not tolerate food by this oral route, high percentages of glucose 50 percent intravenous should be given slowly followed by subcutaneous saline. This does not seem to carry the same reaction as lower dilutions. It should be remembered there will be a definite and quick response to this treatment when the thyroid is at fault and then the patient should be treated as a thyroid crisis, the original surgical procedure entirely forgotten for the time being. By an immediate response is meant within one-half to two hours after treatment has been instituted the temperature should have dropped markedly. The pulse may not follow as rapidly but should be of better volume and quality. Restlessness should subside, cyanosis clear and this dreaded entity be definitely under control.

This same procedure should be followed in any thyroid crisis whether preceding a thyroidectomy or immediately following this operation.

ATYPICAL HYPOTHYROIDISM

The following picture is presented. The history is similar to that of a toxic goiter; a patient presents himself with loss of weight, nervousness, crying, aching over his body, sleeplessness, apprehensiveness, rapid and pounding heart, sweating at times, irritableness, cramps and numbness in arms and legs, "inside nervousness" and empty feeling and many other symptoms found in hyperthyroidism.

Digging into the history will usually bring out the following: Coldness; dry and scaly skin; dry and falling hair; tiredness; may be drowsiness, but usually are alert with sleeplessness; easily fatigued; feeling better in warm weather; very susceptible to cold, contracting upper respiratory infections easily; loss of appetite; morning occipital headache with fatigue; irregular menstruation, many with amenorrhea; loss of sexual desire both sexes; irritableness and unstable nervous systems; unable to do his work either mental or muscular; an individual who looks as though he had been sick for a long time; looks tired; flabby; mucous surfaces pale; dry, showing evidence of upper respiratory infections; some puffiness of face; neck, normal sized thyroid to palpating fingers or may be enlarged with definite nodules or just a smooth soft enlargement; chest, skin dry and scaly; lungs negative; heart negative except rapid, soft pulsations; blood pressure low; back and extremities negative with the exception of a fine tremor of fingers and the hands dry. Remember there is no padding or excess fat found. This is a thin, scrawny individual.

LABORATORY STUDIES

Blood shows slight or marked tendency to anemia with leukopenia and high lymphocyte count, but remember this will also be found in the hyperthyroid case. Basal metabolism may be normal or decidedly lowered. X-ray of chest will be negative. All blood chemistry will be within normal limits with the exception of cholesterol which will always be higher than normal. According to authorities the blood iodine will tend to be below the normal. This not being run in our laboratory and is not necessary to make the diagonsis.

The following treatment in this type of case should be instituted: A very small dose of thyroid, not over one-fourth grain of dessicated gland a day, seeing the patient in five to seven days, remembering you are starting this treatment with a high pulse or more rapid than is expected with a hypothyroidism. The pulse will usually start to drop and will continue to do so as long as the thyroid is continued and then should be increased every five to seven days one-fourth grain at a time until the pulse starts up again. It has been our experience that there may be a very annoying reaction in from eight to twelve days after the starting of this therapy; increased nervousness, restlessness, sleeplessness, etc., and even a higher pulse, in fact all signs of increased thyroidism. Please do not stop the treatment at this point for if it is continued for a few days longer a much desired result will be obtained, all symptoms will subside and then the increased dose can be followed up.

For the anemia, give some fairly large doses of iron in whatever form desired, adding some calcium phosphate or gluconate 30 to 40 grains a day; also because of the lack of proper food intake, necessary vitamins should be added.

Sedatives are never used because we feel this

will mask a number of symptoms for which we are looking, particularly after therapy has been instituted. This may seem to be rather a hit and miss proposition. This is true, but with a picture of hyperthyroidism that will not respond to toxic goiter therapy without surgery or one that has a normal feeling gland as to size, location and consistency, surprising results will be obtained. This type of treatment should be tried before surgery is advised. These patients will gain in weight, appetite returns, all nervous symptoms disappear and in fact will be normal individuals. It may be found that the top dose of thyroid after being continued for some time will not be giving the desired effects. If so, stop all thyroid for 10 days then start with a dose one-fourth grain less than before. This usually corrects the overdose and the good results continue.

Hypothyroidism is found very frequently in children, more often than is suspected. The following picture may often be found in this type of case: A child who will not play; sleeps poorly; restless; cries out in his sleep; irritable; touchy; pale; underweight and undernourished; slow both to external stimuli and to his school duties; refuses to go out if the weather is cold; constipated; will not eat; susceptible to upper respiratory infections, may have a chronic upper respiratory infection, even asthmatic in nature. The laboratory findings as described in the adult. If so, start out with the same course of treatment, only 1/10 grain a day of the gland, increasing a like amount, watching always for the toxic effects of this gland early, but do not be misled in the first few days with the same picture as stated for the adult, but when the irritable stage is being manifested do not increase the dose of the gland.

Many of these children so treated that have not been recognized as such will require a month's time under this treatment before all signs of depression, laziness, tiredness, and sluggishness will have disappeared. They will gain weight and will improve in school, have a good appetite, etc. Remember that they should be treated in addition to the thyroid with all other medication and vitamins as the adult hypothyroid patient.

Always remember that this is not the typical hypothyroid individual who is slow, fat, puffy and exceedingly sluggish, but is the hyperactive; thin, pale, scrawny, dyspeptic type whom you are treating. This fact must always be borne in mind that for all this patient fits into this picture, has all the symptoms and signs of a typical hypothyroidism but still after definite treatment with varying doses of thyroid, that the symptoms have become decidedly worse the therapeutic test thus applied has not proved to be correct, the treatment should not be continued beyond three to five weeks.

243 Lincoln Ave.

Encephalomyelitis In the Horse

Encephalomyelitis in the United States and Canada is of two types, eastern and western. Fortunately, they have remained divided according to territorial boundary. The eastern type, which is the more severe, has unexplainedly remained confined east of the Appalachian Mountains and the western type has for the same unknown reason been restricted west of that mountain chain.

The eastern type which caused a limited outbreak in 1938 contributed a research value when in the state of Massachusetts, people, mostly children, in communities where the disease existed, began to succumb to a malady simultantously with the outbreak of sleeping sickness in the horse. The symptoms in man and animal were sufficiently similar to suggest that the human ailment might be due to the same virus affecting the horse. Laboratory tests proved this to be true and subsequently out of some 40 cases clinically diagnosed in humans, 25 of which died, eight were confirmed by laboratory findings to be the same infection as in the horse.

The eastern type of the virus lent other valuable contributions to science, for it was found that this virus also was capable of naturally infecting birds. Large numbers of pheasants and pigeons which died with suggestive symptoms were confirmed by laboratory tests as having this identical virus in their brains.

In the west, too, quite a number of cases of the western type virus have been confirmed in humans, all of which combines to make this disease not only a livestock disease control problem but one for the Board of Health as well.

The Ohio Horse, in a recent issue, sounds this warning:

"We are advised by the Ohio State Division of Animal Industry that they sent a questionnaire to the regulatory officials of similar departments in states to the west that have suffered epizootics of encephalomyelitis.

"Replies from 21 of these indicate that chick vaccines when kept at proper temperature and used properly and under proper conditions is 100 per cent efficient. In the past several months, the Division of Animal Industry has counselled the veterinary medical fraternity of Ohio to keep the cost of treatment of Ohio's horses with vaccine to a minimum and that care be taken that injections be made at the proper interval, the second dose not sooner than seven nor later than ten days after the first.

"Encephalomyelitis regularly does not appear until May. It is a warm weather disease and runs its course by the end of September. Horses should be vaccinated in April and if this is properly done, they should be immune for eight months."

Studies in Human Parathyroid Gland Transplantation

BEN C. HOUGHTON, M.D., KARL P. KLASSEN, M.D.
and GEORGE M. CURTIS, M.D.

IN 1934, Stone, Owings and Gey[2] demonstrated the practicability of grafting thyroid and parathyroid gland tissue from healthy donors to deficient recipients through the medium of tissue culture. These authors gave abundant evidence of the efficacy of this technique in a series of successfully treated clinical cases[1, 2] and discussed the limiting conditions for transplantation of living grafts. In presenting this case it is our purpose to show the significant changes in the calcium, phosphorus and phosphatase metabolism correlated with the clinical improvement following a parathyroid transplant.

CASE REPORT

B. B. S., a white female, aged 30, was admitted to the University Hospital September 28, 1936, complaining of dyspnea on slight exertion, orthopnea, edema of the lower extremities and vaginal bleeding, with pain in her back and lower abdomen. Symptoms had developed progressively for one year. She had noticed a gradually increasing enlargement in her neck for about three years. Her appetite was excellent, but in spite of adequate caloric intake, she had lost 45 pounds in the past year. Nervous irritability, tremor and heat intolerance were noted.

Past history was non-contributory. She had the usual diseases of childhood without complications or sequelae. The patient had six normal pregnancies in twelve years of married life.

On physical examination, the patient was found to be well developed and fairly well nourished. There was bilateral exophthalmos with an exophthalmometer reading of 21 mm. on the right and 19 mm. on the left. The patient had complete adentia. There was a nodular enlargement of the right lobe of the thyroid gland and its isthmus. The trachea was slightly deviated to the left. The lung fields were clear. The heart was slightly enlarged to the left and there was a soft systolic murmur at the apex. The blood pressure was 136/72 mm. with a pulse rate of 80. Examination of the abdomen revealed tenderness in both lower quadrants and pelvic examination revealed acute tenderness in both adnexal regions. There was no edema of the extremities.

Laboratory examination revealed a hemoglobin of 80 percent with a total red cell count of 3,900,000; total white cell count of 4,900 with a differential cell count of 52 percent PMN, 48 percent lymphocytes. The urine contained a trace of albumin with an occasional white blood cell. The Wassermann and Kahn reactions were negative. The icterus index was 7.0. There was a marked increase in erythrocyte sedimentation rate. Hippuric acid excretion was 3.9 grams. PSP excretion was 85 percent for the first hour and five percent for the second hour. A basal metabolic rate on 10/16/36 was plus 38 percent, with a pulse rate of 82, temperature 97.6° F., under basal conditions. The weight was 110 pounds. X-ray examination of the chest revealed diffuse fibrosis of both lungs with suggestion of infiltrative lesions at both apices. There was no evidence of activity.

The patient was prepared for thyroidectomy using 100 mgm. of iodine as potassium iodide daily. Subtotal thyroidectomy was performed on 11/2/36. The total gland tissue removed weighed 90 grams, and was composed largely of diffuse hyperplastic tissue. No parathyroid tissue was seen on careful section. A pathological diagnosis of hyperplastic nodular colloid goiter was made.

Immediate postoperative condition was good. Seventeen hours postoperatively, the patient complained of tingling sensations in her arms, hands and feet. The hands were in obstetric contracture, and the Chvostek and Trousseau signs were both positive. Calcium gluconate was given intravenously at regular intervals, with relief of symptoms. On the third postoperative day, the patient had severe tetany with cramping pains in the extremities, which was controlled by the administration of calcium.

The patient was discharged on the eleventh postoperative day. At this time the serum calcium was 6.3 mgm. per cent and serum phosphorus 5.5 mgm. per cent. She was instructed to take 10 grams of dissolved calcium lactate and 15 drops of drisdol daily.

In the following months, it became obvious that active symptoms could not be adequately controlled under the usual medical regimen. Parathyroid transplantation was therefore contemplated.

On February 14, 1938, a normal parathyroid gland was obtained. In preparation a modification of the technique suggested by Stone, Owings and Gey was employed. The tissue was cut into sec-

From the Department of Medicine and the Department of Research Surgery, Ohio State University. This work was aided by a grant from Mr. William Wallace Kincaid, Ellerslie-on-Niagara, Youngstown, New York.

The Authors

● Dr. Houghton, Columbus, Ohio, is a graduate of State University of Iowa, College of Medicine, 1934; instructor in Medicine at Ohio State University College of Medicine.

● Dr. Klassen, Columbus, Ohio, is a graduate of University of Chicago Medical School, 1936; resident in Research Surgery, Ohio State University, Starling Loving University Hospital.

● Dr. Curtis, Columbus, Ohio, Rush Medical College, 1920; fellow of the American Surgical Association; member Western Surgical Association, American College of Surgeons, American Association for Thoracic Surgery; attending surgeon at Starling Loving University Hospital; professor of surgery, Ohio State University College of Medicine.

tions measuring approximately 4 mm. cubed and thoroughly washed in sterile Tyrode's solution. These fragments were then transferred to 50 cc. Erlenmeyer flasks containing 5 cc. of a medium of 75 percent donor's serum and 25 percent Tyrode's solution. The pH was adjusted by means of a 3 percent CO_2 gas mixture and the flasks were sealed. The medium was changed every second day, increasing the concentration of recipient's serum 10 percent with each successive renewal. The tissue was incubated with 75 percent recipient's serum for eleven days prior to transplantation.

The tissue fragments were finally thoroughly washed in Tyrode's solution and implanted high in the subpectoral tissues of the left axilla through a small skin incision. Care was exercised to obtain a bloodless field. The wound was closed without drainage and healing occurred by first intention.

The calcium and phosphorus balance studies were carried on in the metabolism ward by the methods of Bauer and Aub[6]. This procedure has been used in this clinic for a number of years in the study of iodine and calcium metabolism[3]. The serum calcium was determined by the method of Clark and Collip[4]. The serum inorganic phosphorus, the total phosphorus of food and excreta and serum phosphatase were determined by the methods of King[7]. The total calcium content of food, feces and urine was determined by the method of Puppel and Curtis[5].

BALANCE STUDIES

Complete data on calcium and phosphorus balance studies, and the level of these elements in the serum are shown in Table I. Urinary excretion of calcium per three day period in May, 1937, was 0.073 mgm. with a fecal excretion of 0.562, while the patient was on a calcium intake of 1.353 mgm. There was a marked positive calcium balance of 0.718 mgm. per three day period. The patient had been taking calcium lactate and vitamin D up to 4000 units per day for a week prior to the present metabolism studies. This explains the low excretion of calcium in her feces with a high calcium balance. The phosphorus excretion in the urine during these nine days of study was 0.677 mgm. per three day period, which is characteristic of hypoparathyroidism. The fecal excretion was normal. There was a positive balance of 0.550 mgm. per three day period, which is higher than the normal of patients on the same phosphorus intake. The serum calcium fluctuated between 4.9 and 5.4, with an average of 5.1 mgm. percent. The serum inorganic phosphorus was 5.7, average for three examinations. The low urinary excretion of calcium, together with a diminished excretion of phosphorus in the urine, low serum calcium and high inorganic phosphorus are typical findings of hypoparathyroidism. During this time of investigation, the patient had constant muscle cramps, bilaterally positive Chvostek and Trousseau signs.

PREOPERATIVE DATA

The patient was again placed on metabolism conditions on 3/5/38 just prior to parathyroid tissue transplantation. During the first three day period the urinary excretion of calcium was the same as that of 5/15/37. The fecal excretion of calcium was more than double, 1.350 mgm., since the patient had not received vitamin D prior to admission. With the calcium intake being approximately the same as in the period of May, 1937, the patient had a negative calcium balance of 0.179 mgm. Urinary excretion of phosphorus was only 0.666 with no change in excretion of phosphorus in the feces. There was a positive phosphorus balance of 800 mgm. per three day period. The serum calcium was 6.3 and the phosphorus was 5.8. Phosphatase activity was 4.5 units which is below normal for a patient of this age. The patient at this time had tingling in hands and feet, involuntary movement of eyes and obstetrical hand with positive Chvostek and Trousseau signs.

On the morning of operation the phosphorus of the serum was 6.1. Immediately following the parathyroid tissue transplantation there was a marked subjective improvement in the patient's general condition, similar to the results obtained by injecting parathyroid extract. The effect upon the serum calcium and phosphorus and also upon the excretion of calcium and phosphorus was transitory, but very much like that following injection of parathyroid extract. On the first postoperative morning, serum calcium rose to 7.9, but the inorganic phosphorus of the serum not only did not show a fall but rather a rise to extreme high level of 7.0 mgm. percent. On the second postoperative day the serum calcium had fallen to 6.5 mgm. percent, but phosphorus was 5.4, which was the lowest found in this patient while under observation. The phosphatase activity on this day was 8.5 King units which is above normal for a patient of this age. On this morning there were no symptoms, Trousseau sign was negative, but there still was a positive Chvostek. The metabolic data for a three day period immediately following parathyroid transplantation showed a urinary excretion of 0.095 mgm. of calcium and 1.098 mgm. of phosphorus in the urine. In the third three day period there was a slight drop in both the calcium and phosphorus excretion of the urine, but still these were very much higher than during the control period immediately preceding parathyroid transplantation. There was no remarkable change in the serum calcium and phosphorus and on 3/14/38 there again was a low serum calcium of 6.2, phosphorus 5.5 and phosphatase 3.0. On the eleventh postoperative day, the urinary excretion again was at

THE CALCIUM AND PHOSPHORUS METABOLISM IN A PATIENT WITH HYPOPARATHYROIDISM AND FOLLOWING PARATHYROID TRANSPLANT.

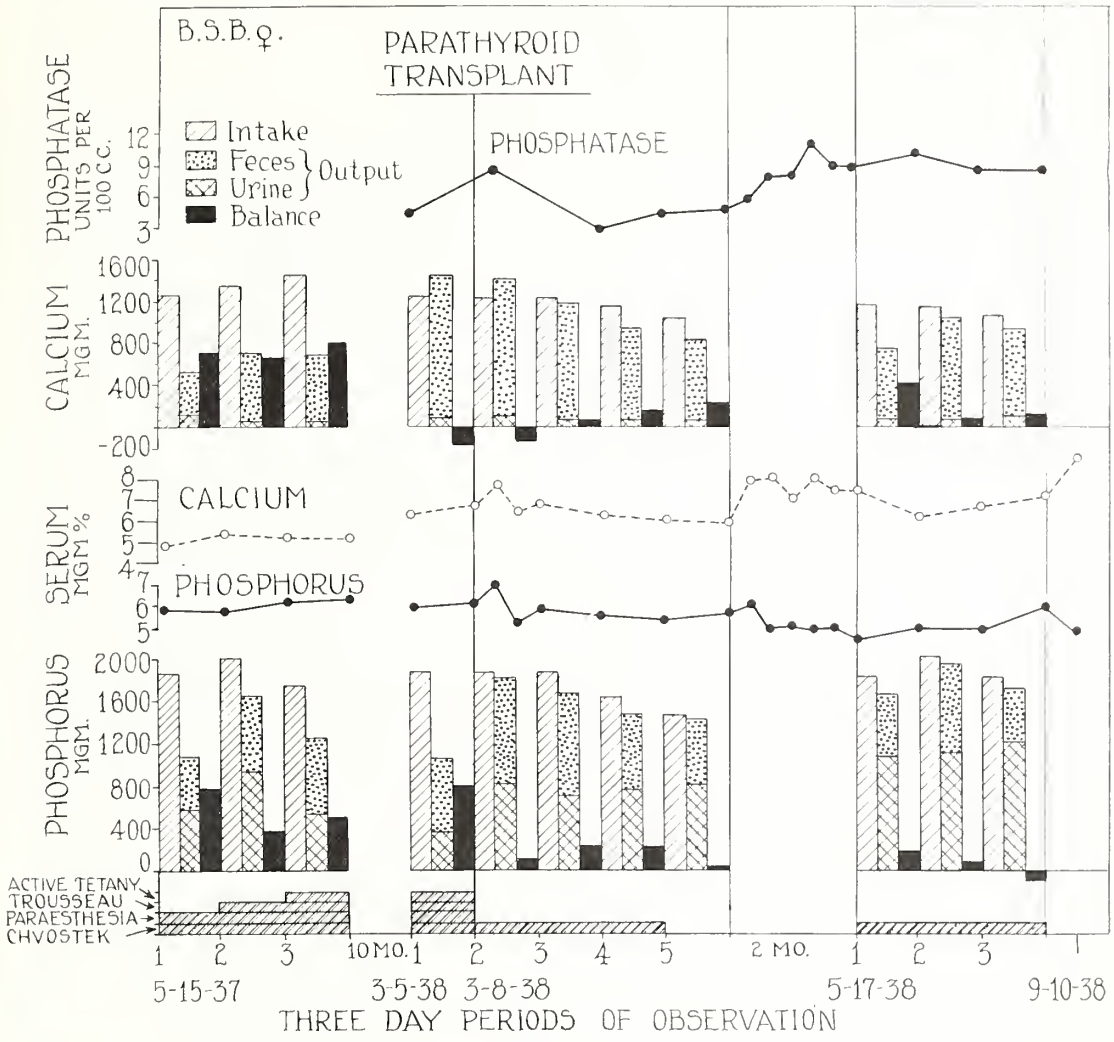


TABLE No. 1

the preoperative level but the phosphorus excretion was almost twice that of the control period. Although the serum calcium was 6.0 and the serum phosphorus 5.4, there was only a faintly positive Chvostek on the left side.

Approximately four weeks following parathyroid transplantation, the calcium of the serum had reached a high level of 8.7 mgm. percent and the phosphorus had fallen to 5.0. Phosphatase activity again had risen to 8.4 and the patient was completely free of all symptoms and signs of hypoparathyroidism. This gradual rise in serum calcium and fall in serum phosphorus is shown in Table I.

The patient returned to the hospital on 5/13/38 for further calcium and phosphorus metabolism studies. She had been working on a farm and the only symptom suggesting hypoparathyroidism was tingling in her right hand after heavy work. She was reluctant to enter the hospital and considered herself cured. Calcium and phosphorus metabolism studies are shown in Table I, and when compared with those of May, 1937, show an increase in the parathyroid function. There is an increase in the excretion of both calcium and particularly phosphorus in her urine. The serum calcium averaged 6.9 and phosphorus of the blood was 4.8, with a high phosphatase activity of 9.2. The first three days while the patient was on a low calcium and phosphorus intake, she had a return of the latent symptoms of hypoparathyroidism, but on the fourth day her Chvostek was again negative and she was free of all symptoms.

A final observation on this patient is recorded on 9/10/38. At this time the serum calcium was 9.2 mgm. percent, and the serum phosphorus 5.4

mgm. No symptoms could be elicited, and the patient was returned to normal active life.

SUMMARY

A case of chronic hypoparathyroidism with latent and active tetany did not respond to the usual high calcium, low phosphorus, high vitamin D medication. Following parathyroid tissue culture and transplantation into the left axilla there was immediate symptomatic relief, which has persisted for six months.

Calcium and phosphorus metabolism studies show an increase in the urinary excretion of calcium and particularly phosphorus. There was a rise in the serum calcium and a fall in the serum inorganic phosphorus. Positive Trousseau and Chvostek signs became negative and symptoms of latent hypoparathyroidism were controlled. The patient did not require calcium medication and maintained her serum calcium at a low normal value on a regular low calcium diet.

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Pellagra In Kansas

Pellagra is not a rare disease in Kansas. From 1914 to 1936 the United States Public Health Service reported 248 deaths from pellagra in Kansas. From 1928 to 1938 we observed forty-five patients with pellagra. Thirty-one of these forty-five patients resided in Kansas and the remainder resided in the neighboring states. Two of these patients died from the disease. Comparison of the United States Public Health Service mortality figures with our mortality rate and incidence strongly suggests that pellagra is much more common in this region than is generally recognized. Pellagra is easily overlooked in the midwest because its prevalence is not realized and because there are subclinical as well as very positive forms of the disease. As we became increasingly aware of the disease our incidence for the past four years surpassed that of the preceding six years.

Two of these patients died from pellagra and two died from gastro-intestinal carcinomas. The patients with severe pellagra usually made a good recovery from the disease in about a year and their experience was sufficient to make them continue their treatment to prevent relapses. The mild pellagras improved within a few months but they had difficulty in maintaining an adequate diet and they often had minor relapses.

The treatment must include a balanced high caloric diet with plenty of beef and liver. Fruit juices may be helpful. Liver extract orally or parenterally should be used. Brewers yeast as yet is the most satisfactory source of vitamin B and should be given in doses up to a heaping tablespoonful three times daily. Dilute hydrochloric acid is of value especially for the control of vertigo and diarrhea. Nicotinic acid may be helpful but to date its dependability is too questionable to include it as a major part of the therapy. Small blood transfusions are occasionally necessary. If the skin is moist, mild astringent packs are needed and if it is dry, ointments with an oil base are used. Symptomatic care and sedation are essential.

Pellagra occurs in Kansas. During the past ten years we have observed forty-five patients with pellagra. Thirty-one of these patients were native Kansans. Twenty-seven had the mild type and eighteen had the severe type of the disease. Forty-two of the patients were females. The most common background of the illness was psychoneurosis. The pellagra was secondary to primary gastro-intestinal lesions in three instances. The symptoms and findings of typical pellagra are subject to marked variations. Four of these patients have died, two from the disease and two from gastro-intestinal carcinomas. Remissions usually followed adequate therapy but relapses were difficult to avoid if the patient failed to maintain a balanced diet. Treatment of the pellagra does not eliminate an underlying psychoneurosis.—D. V. Conwell, M.D. and L. W. Hatton, M.D., Halstead, Kansas. Jour. of the Kansas Med. Soc., Vol. XL, No. 1, January, 1939.

Tuberculous Appendicitis

Tuberculous appendicitis is reported 151 times in the literature to May, 1937, and eight more cases are added in this report.

Clinical course of the disease tends to chronicity, with recurrent attacks usually milder than the pyogenic types of appendicitis.

Eight cases are briefly summarized and microscopic sections shown of the involved appendix.

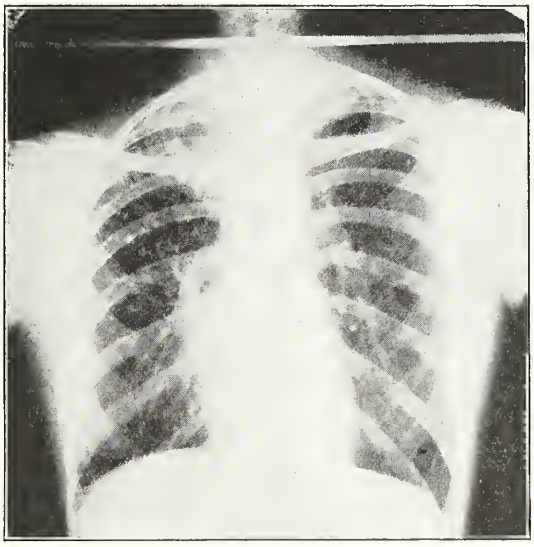
Earlier recognition by the physician should be made.

Early operation, with removal of involved appendix, will reduce the morbidity and mortality in our tuberculosis sanitaria.—Thomas A. Card, M.D., Riverside, Cal. California and Western Medicine, Vol. 50, No. 3, March, 1939.

Planography (Body Section Radiography) Its Application to Thoracic Therapeutics

WARREN C. BREIDENBACH, M.D.

IN the past ten years there has been a constantly increasing interest in Planography (Body Section Radiography) especially in regard to its use in thoracic therapy. In this preliminary report I shall but briefly outline its principles, leaving this to a more elaborate discussion or probably to a separate paper dealing with theory only. Briefly, however, the following will suffice to describe the basic fundamentals. Considering the conventional "flat" radiographic film, it is apparent that it is of necessity a composite affair, including all parts between the X-ray tube and the film. Stereoscopic films attempt to further separate and segregate these



FILM 1-A

shadows by creating a perception of depth. However, some observers maintain that this "sense of depth" is an optical illusion rather than an accuracy. Without entering into this discussion, suffice it to say that in the author's opinion body section radiography presents a superior method of diagnosis to the "stereo" at its best.

Sectional radiography is accomplished by various methods in all of which, by one device or another, the roentgen tube and film-containing cassette move in converse directions during the exposure. In this way a blurring is accomplished which affects all planes (depths) except one—namely that one which is opposite the fulcrum;

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The Author

● Dr. Breidenbach, Dayton, Ohio, is a graduate of the University of Michigan, Medical School, 1917; fellow American College of Physicians; medical director at Stillwater Sanatorium; consultant at Miami Valley and Good Samaritan Hospitals, Dayton, Ohio.

consequently making the fulcral plane the focal plane. The motion may be compared to that effected when a pair of scissors is opened—all points are in motion, but the fulcral point which is immovable. There must be for the best results some additional (Sine) motion. In the method by which the following films were produced the Rectilinear Sine motion was used. Also this method utilizes planigraphic fluoroscopy for estimation of the depth to be recorded preceding the actual production of the films, thus necessitating the recording of only such layers as desired and eliminating the recording of all layers in order to visualize several.



FILM 1-B

Case One: The roentgen diagnosis of an apical lesion is not difficult to make and stereoscopically the destructive nature of the lesion is apparent. (Film 1-A). However, when considering the planigraphic film beside it, (Film 1-B),



FILM 2-A FILM 2-B FILM 2-C



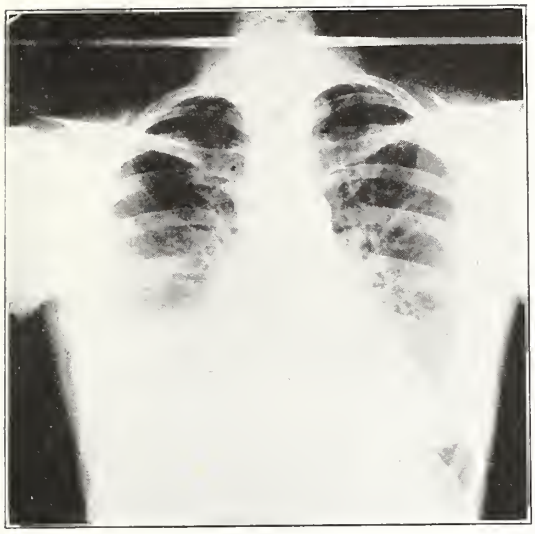
FILM 3-A FILM 3-B FILM 3-C

certainly the diagnosis or "opinion" of cavity becomes "proof" of cavity. Clavicle and rib structures are blurred and almost absent. Cavitation becomes apparent to the most inexperienced and furthermore thickness of cavity wall is most obvious. In addition the therapist may know the definite location of the cavity—in this case 10 cm. from the dorsum.

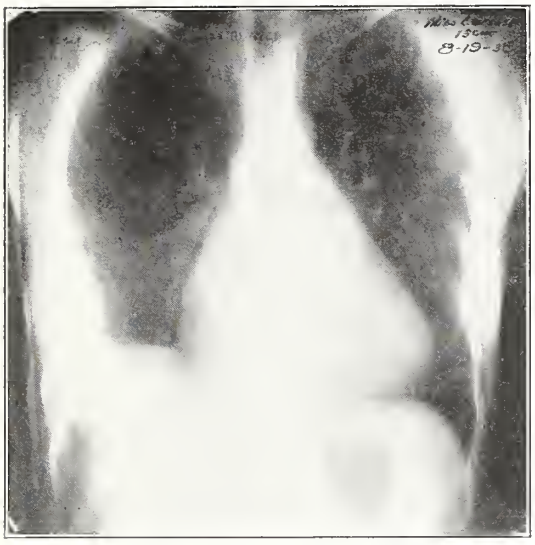
Case Two: Film 2-A represents the usual film obtained after thoracoplasty. Marked densities are as usual seen on the operative side with little information obtained as to cavity obliteration. In Films 2-B and 2-C (planigraphic) the cavitation at the level of 7 cm. from the dorsum is most apparent, while at the level of 14 cm. a second residual cavity appears. These findings resulted in a revision operation following which a fourth planigraphic study, which lack of space prevents publishing, showed complete absence of these antra.

Case Three: The third case of this series is one in which artificial pneumothorax had been carried on on the left for a considerable period of time. It was discontinued with the feeling that satisfactory results had been obtained. Over a considerable period of time the left remained stationary with the usual thickened pleura, as may be seen in conventional Film 3-A. However, as time progressed an apparent lesion was noted on the right (also demonstrated in Film 3-A) the character of which was not readily determined. Planigraphic films were made and one taken at a level of 8 cm. from the dorsum, as seen in Film 3-B, was obtained. Massive cavitation is apparent on the right, and on the left is a residual cavity in the apex (indicated by arrow) which doubtlessly was there at the time pneumothorax was discontinued; this unnoticed cavity being responsible for the subsequent extension to the right. An extrapleural pneumothorax was done on the left completely obliterating this cavity, and subsequent planography shows a marked decrease in the cavitation on the right due to decreased infection and contralateral pressure as well as "filling" in of the cavity. (Film 3-C).

The final case for consideration is one in which with a previously known megalo-cardia a definite case of spirochaetal pneumonia developed. This was followed by pleurisy with effusion and repeated aspirations. The usual thickening of the pleura followed and determination of the true status of the pulmonary tissue became impossible. Conventional radiography revealed only a massive density, as shown in Film 4-A, whereas planography clearly demonstrated, as shown in Film 4-B, that the pulmonary fields were entirely



FILM 4-A



FILM 4-B

clear and perfectly visualized the diaphragm which was previously obscured.

CONCLUSIONS

1. Planography (Body Section Radiography) is of prime importance in thoracic surgery.

2. To the clinician it is superior to stereoscopy.

3. Its usefulness in other fields is not as fully developed, but should be of great importance in the future.

FIDELITY MEDICAL BLDG.

To do easily what is difficult for others is talent. To do what is impossible for talent is the work of genius.—Amiel.

The Roentgenogram in Intestinal Obstruction

The plain roentgenogram of the abdomen in cases of intestinal obstruction usually presents characteristic features which not only indicate the presence of an obstructive process, but frequently enable one to determine its site and occasionally its type.

A film made with the patient in the supine position is, in most cases, the most valuable, but additional information is usually afforded by an additional film made with the patient in the sitting position.

Demonstrable gas in the small bowel may be seen in the absence of mechanical intestinal obstruction. It occurs, of course, in paralytic ileus where it is usually associated with obvious distention of the colon. Less commonly it is seen in infancy, after drug deprivation, and after vigorous catharsis.

Demonstrable distention of the small bowel may be absent in mechanical intestinal obstruction if the film is made very early after the onset of the obstructive process. It may also be absent in intermittent obstruction and in very high obstruction.

In cases of mechanical intestinal obstruction treated conservatively by transduodenal decompression, frequent films of the abdomen enable one to accurately judge the success or failure of therapy.—P. E. Wigby, M.D., and W. H. Cochran, M.D., Dallas, Texas. Texas State Jour. of Med., Vol. XXXIV, No. 11, March, 1939.

Vincent's Infection

In discussing the predisposing factors to Vincent's infection, dietary deficiencies, and particularly scurvy, have been mentioned by quite a number of essayists on the subject, but it has only been in the last few years that very much emphasis has been placed on scurvy, and particularly the subacute or, as we have preferred to call it, the subclinical form in this connection.

"Clinically, scurvy is characterizedd by ecchymosis, extravasation, and edema of the lower extremities (caused by subperiosteal hemorrhage), and by hemorrhage of the investing soft tissues of the teeth. The degree of the symptoms varies with the severity of the disease . . . It is logical to believe that there are many people, particularly of the lower income group, whose diet is below the minimal requirement of antiscorbutic foods. This condition, coupled with the fact that one of the early symptoms of the disease is spongy, hemorrhagic gums, would lead one to associate subclinical scurvy with the high rate of gingivitis, stomatitis, and Vincent's infection."[2]—H. M. Williams, M.D., Fort Worth, Texas. Texas State Jour. of Med., Vol. XXXIV, No. 11, March, 1939.

2. Cady, F. C.: Association of Scurvy with Oral Diseases, Pub. Health Rep. 52:1526-1530 (Oct. 29), 1937.

Care and Treatment of Traumatic Eyes

MERLE EDISON SCOTT, M.D.

THIS paper will be confined strictly to the care and treatment of injured eyes, regardless whether injury occurred from an industrial accident or otherwise. The subject will be divided into extra-ocular and intra-ocular injuries.

The late Dr. Frank Alport of Chicago, coined a phrase, "shop oculist", that is so descriptive that it is worth mentioning in connection with traumatic eye injuries. He described a helpful individual in a plant that has an undeserved reputation in removing tightly embedded foreign bodies from corneal tissue. He is always ready to lay aside his own work, and with his dirty hands, without any knowledge of asepsis, try to dislodge a tightly embedded foreign body from a fellow workman's eye, that would tax the skill of a very competent eye surgeon. When he has finished his operation, as a rule just the top of the foreign body has been removed leaving the tightly embedded part still in the cornea to be removed later by an oculist after the eye has become inflamed and painful and, usually, infected and in rather a dangerous condition. Then the patient generally finds it necessary to take "time off" so his eye can be treated and cared for, whereas, had he gone to a competent oculist in the first place he would have been saved time and considerable suffering. Besides safety measures, such as safety goggles to be used in grinding operations, the foremen or superintendents of these plants should have definite rules regarding the removal of foreign bodies from injured eyes. Very definitely they should not allow injured eyes to be touched in any way, other than by a competent oculist. This not only saves time and money for the company but eliminates the possibility of the loss of vision and untold suffering to the injured individual. Needless to say all eye injuries must be treated with as much aseptic care as any other operation. The oculist should not only be carefully trained in this work for successful operating, but must have all necessary instruments that will take care of any conceivable case that may occur.

FOREIGN BODIES

In removing embedded foreign bodies from corneal tissues, good anesthesia, good light and binoculars are absolutely necessary. At the best it is difficult to have the patient hold his eye steady for this delicate procedure. Covering the uninjured eye will help in this matter. A delicate eye spud is generally used, although nearly everyone has his own special instrument that he likes and uses, but regardless of the one used, the important thing is to see that all of the foreign body is removed at the first sitting; and in so doing, be extremely careful not to disturb any more of the surrounding healthy cornea tissue than is absolutely necessary. Deeply embedded emery bodies sometimes are the most difficult of all to remove in their entirety. Emery, if placed under a microscope, will show small burrs that seem to fasten themselves securely in the corneal tissue. After any foreign body is removed the eyeball should be stained with 2 percent flourescin and irrigated with boric or saline solution, then if any particle of the foreign body remains it will be sharply outlined in a brilliant green background and easily seen.

Other types of foreign bodies that present a problem in removal are the slender slices of steel or wood that lie parallel to the laminae of corneal tissue. If it cannot be worked out by manipulating the free end then the only way to remove this type of foreign body is to cut down upon it, thereby freeing it and then prying it out. However, great care should be used to see that in doing so the end of the foreign body does not penetrate the anterior chamber, thereby adding another hazard to an already serious eye condition. As oculists and doctors we always have been told how delicate the eyeball is, but after seeing possibly every conceivable eye accident that can happen to eyes one marvels at the toughness and the abuse that an eyeball can stand and still be a useful organ of vision.

PUNCTURE WOUNDS

Puncture wounds of eyeballs are by far the most dangerous type of injuries that can happen to eyes. A very careful history should be obtained as to how the injury was sustained. Certain types of injuries have the oculist defeated before he starts, such a glass that has penetrated the eyeball. At the present no known means of removal has been presented, other than removing the particles by instruments. We are usually defeated in

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The Author

Dr. Scott, Massillon, is a graduate of Ohio State University College of Medicine, 1920; member American Academy of Ophthalmology and Oto-Laryngology; American Association of Railway Surgeons, and American College of Surgeons.

this due to the presence of blood or loss of vitreous, and usually the eyeball goes on to suppuration and subsequent enucleation. In case the eyeball is punctured by a foreign body other than glass, a good roentgenogram should be made at once to prove the presence or absence of a foreign body inside the eyeball.

The new alloys of steel now used in the industries, give the oculist a new problem in the matter of intra-ocular foreign bodies. Many of the new alloys are not as magnetizable, for their content of iron is lowered in their manufacture, hence the power to attract these bodies by a magnet is lowered. The regular eye magnet that most oculists possess is not strong enough to pull the foreign body from the globe. Hence, these patients have to be transported to the larger cities for extraction, if they can be extracted at all.

We, as oculists, know the danger of leaving a foreign body inside of an eye. If metal, we know it is oxidized by the humors of the eye. It soon causes a condition of siderosis and necessitates the removal of the eyeball for fear of a sympathetic inflammation of the fellow eyeball. Hence, it is a rule that in a case where we are sure beyond any reasonable doubt that the foreign body (metal), is intra-ocular and cannot be extracted by any method, then the eyeball should be enucleated at once.

LOCALIZATION

In making roentgenograms of intra-ocular foreign bodies they should be made for localization purposes as well as to prove the foreign body is inside the globe. Great care should be used in the localization before the extraction by magnet is tried, remembering that these charts for localization are schematic and of standard size and where an error of 1 to 2 m.m. will either show the foreign body inside or outside the globe. One must remember that all eyeballs are not of standard size, as are the charts. Some eyeballs are longer and some shorter, hence the danger of removing an eyeball in a case where the foreign body has been driven completely through both coats of the eyeball and is situated in the fatty, cellular tissue where it can remain indefinitely without extraction or danger to the eyeball.

This was brought to my attention very forcibly last November. A patient was helping knock out a wrist pin in a motor. A sharp piece of steel was driven through the lower eye lid, posterior quadrant of eyeball and completely through vitreous and other coat of eyeball into cellular tissue of orbit. The first pictures for localization showed the foreign body to be intra-ocular, which later proved not to be true. The piece off which the foreign body was broken was tested for magnetic qualities. It was very magnetizable steel. The patient was anesthetized and the point of my heavy magnet introduced into the incision which was already made by the entrance of the foreign body, but with no results. This was done three times and a noticeable dimpling on the opposite side of the eyeball was easily seen. Now since the roentgenograms for localization that were made showed the foreign body to be just 1 to 2 m.m. inside the posterior part of the eyeball I decided to have our roentgenologist make more pictures and re-localize. This was done and this time the foreign body was shown back of the eyeball in the cellular tissue, where I left it. The eyeball is now quiet. This case shows the necessity of knowing exactly where the foreign body is located.

At this writing I have, in our hospital, a case where a large piece of tool steel, also magnetizable, took the same course as the case above. The localizing pictures showed that the foreign body had entered the eyeball at the sclero-corneal junction, tearing a ragged hole in the globe and completely transversing the eyeball and landing, as above, in the cellular tissue of the orbit, however, very near the posterior coat of the eyeball. Knowing that it was very near the eyeball and wanting absolute proof that the foreign body had completely transversed the eyeball, the patient was anesthetized and a magnet held up to the rugged opening made by the entrance of the foreign body. There was no result. I went back after turning the eyeball nasalward and inserted the fine point of the magnet in a very small incision into the posterior chamber without any result. The usual dimpling was seen, but the procedure proved absolutely that the foreign body was not intra-ocular and in this case the localization was true. The procedure I followed did no harm to the eyeball, but it did prove beyond a reasonable doubt that the foreign body was not being left inside of the globe.

I remember a case of two years ago which came to me with a siderosis in which I enucleated the eyeball. A very fine oculist had taken the roentgenologist's opinion that the foreign body, (steel), was outside of the globe, i.e., had been driven completely through the eyeball. Such was not the case for two years later the globe became a rusty brown, proving to the contrary, that the steel was intra-ocular. There is a grave responsibility on the part of the oculist and roentgenologist in handling this type of injury. It is a good procedure to make pictures to prove the exact location of an intra-ocular foreign body.

Of course, we fear eye infection in these cases, but for some reason the eyeball stands these injuries rather well. In my opinion it is due to the fact that these missiles, due to the speed of their flight, sterilize themselves.

The plant superintendents and foremen should

make it a rule never to allow their workmen to work with old burred tools. These are usually the ones causing the damage to eyes. Another important point in the cases of eye injuries is the fact that many of their workmen have poor eyes and need refractions and lenses badly. Many plants that have experienced bad injuries have all their men wearing a shatter-proof glass with their own proper correction ground in their individual lenses.

RESUME

The complexities of industrial injuries to eyes necessitate the greatest care in protecting these precious organs, not only to preserve good vision but to prevent the complete loss of the eye.

Injuries that might seem superficial are later liable to become a serious problem. All eye injuries should be treated as dangerous until proved otherwise.

Injury to the eyeball where no foreign body is found should immediately arouse suspicion of an intra-ocular foreign body until otherwise proved negative. The eye should be stained with 2 per cent flourescin to see that there has been no entrance gained directly through corneal tissue. A small diagnostic magnet should be tried along with a heavier magnet for diagnostic purposes. Then if not satisfied after an inspection with ophthalmoscope a good roentgenogram made to prove the absence or presence of a suspected intra-ocular foreign body.

In contused injuries a guarded prognosis should be given for very often a contused eye, when struck forcibly will develop a traumatic cataract and in its wake an acute glaucoma.

Lastly the mixtures of alloy steels in modern steel making have created a new problem for the oculist in managing intra-ocular foreign bodies.

Heart Disease In Later Life

The toll from heart disease in later life, for example, can be materially reduced through the control of such infections as acute rheumatic fever, scarlet fever, and syphilis at the younger ages. The serum treatment of pneumonia, if more widely applied throughout the country, would greatly reduce the mortality from this disease, which claims its many victims at all ages of life, and there is new prospect of even greater success by chemotherapy. Even the mortality from cancer, the cause of which still eludes medical science, can be reduced by educating the people regarding the importance of early diagnosis and treatment. With all of these possibilities for life conservation now available, it is not too much to expect that by 1980 the average length of life among the American people may be 70 years, or possibly more.—Statistical Bulletin, Metropolitan Life Insurance Company, March, 1939.

Early Hospitalization and Operation In Acute Cholecystitis

1. Cholecystostomies predominate in the immediate group while cholecystectomies are a little more common in the delayed group.

2. Gangrene or perforation were present in 50 per cent of the immediate and 65 per cent of the delayed group.

3. The death rate was 16 per cent in the immediate group and 6 per cent in the delayed group but here it is necessary to remember that the former group represents the sickest patients in this series.

4. Even though there had been an average delay of nine days in the delayed group the incidence of cholecystostomy was only reduced 9 per cent from 51 per cent to 42 per cent. Combine with this the fact that several of the cholecystectomies were performed on cases in which an acute process was still present and you realize that the delay was to help in less than 25 per cent of the cases in the operative group and this 25 per cent represents probably the mildest cases, which could have been submitted to immediate surgical intervention with little or no greater risk. That this statement is true was definitely proved by Heuer who in 1937 reported a series of 153 cases of acute cholecystitis in which cholecystectomy was performed in 138 cases and cholecystostomy in 15 cases with a total mortality of only 3.2 per cent.

Thus we see that the price paid for the delay in surgical intervention, whether due to the conservative attitude of the doctor outside or inside the hospital, does not warrant the delay. Complications in the cases of acute cholecystitis are serious and can be prevented only by operation at the earliest possible moment. Operation in the early stages not only is less dangerous but can be complete rather than palliative. Let us, then, do all in our power to impress both the laity and the profession with the necessity not only for early hospitalization but also for early operation.

One hundred and thirteen cases of acute cholecystitis are presented, with a summary of the signs, symptoms and outcome. Seventy-four per cent of the cases were treated surgically and 25 per cent conservatively. The mortality rate was 9.7 per cent. Operative mortality rate was 10.8 per cent.—Anthony V. Migliaccio, M.D., Providence, R. I.; Rhode Island Med. Jour., Vol. XXII, No. 1, January, 1939.

A patient had a large ureteral stone with colics for three years. She refused to let anyone in America operate on her. Finally, she traveled to Berlin to see Israel, but, on the cart going into the operating room, she passed the stone.—William G. Exton, New York.

Basal Skull Fractures Involving the Petrous Bone (Ear)

ALBERT P. HOFMANN, M.D.

WITH the ever increasing number of automobile and traffic accidents, there is a corresponding increase in skull fractures involving the ears. The base of the skull is the gateway to the cranium, for through it, all the important blood vessels must pass going to and from the brain. The anterior fossa is one inch above middle fossa, which likewise is one inch above the posterior (Mellinger). The dura is firmly attached to the entire inner surface of the base, which accounts for the infrequency of extra dural hemorrhage. Fractures are the result of excessive forces, causing tissue damage, and extend along lines of least resistance, such as two or more foramina, along sutures and pneumatized osseous tissue. Pneumatization is so variable as to extent and direction, that it becomes a very uncertain and hazardous factor, for it crosses suture lines, forming diploic structures.

The sphenoid bone enters into the formation of the three fossae and articulates with all the bones entering into their formation. The petrous apex is loosely attached to the posterior border of the great wing of the sphenoid. Fractures involving the petrous are usually transverse and extend through the labyrinth, causing total deafness, nystagmus, vertigo, and falling reaction. When the transverse fracture does not involve the labyrinth, deafness is due to hemorrhage along spiral cochlear and into the auditory nerve. Longitudinal fractures of middle fossa do not cross the petrols or involve the inner ear. (Hunt).

CLASSIFICATION OF FRACTURES

Murphy classifies fractures according to symptoms and signs referable to ear.

(1) Fractures of the external ear canal only, do not involve middle or inner ear. We find marked swelling around the isthmus, the hearing is good. Sometimes there is a history of trauma along the horizontal ramus of the mandible. There is pain in the region of the glenoid fossa when the mouth is opened. The fracture extends from the fossa into the roof of the external ear canal. Some blood may be in the external canal. Sequestrum of bone may be found protruding through a tear in the skin of the canal which should be removed. No stricture of the canal results.

(2) Fractures of middle and inner ear, when localized are usually around the tempero-occipital region in area of external trauma. The degree of trauma varies as to distance of fall or force of injury. A fracture of the skull is usually prima facie evidence that the brain has been injured, and is based upon the elastic properties of the skull, which is more marked in infants.

(3) Unrecognizable fracture lines have symptoms of deafness, tinnitus, vertigo, facial paralysis, aphasia. These injuries do not positively result from fractures alone but are due to trauma to brain tissues, without fractures.

X-ray findings are not to be relied upon except when positive findings are demonstrated. It is truly pathetic to note how many fractures are found during postmortem examination, which are not visible on film. This is not meant to criticize our X-ray colleagues, but it is expressed with the hope that some technique will be able to demonstrate these obscure fracture lines. Murphy states that fracture lines will be found in direct relationship to the perseverance exerted to demonstrate them and advocates repeated pictures. Grove states that practically all fractures of the middle fossa and the temporal bone, must be diagnosed clinically, because the X-ray is notoriously incompetent to delineate these fractures.

The middle ear is always damaged in patients who survive the injury, while the capsule of the internal ear or labyrinth is rarely fractured, except in fatal cases. In the few cases recorded, in which the internal ear has been fractured by great violence, cerebro-spinal fluid was present.

In exceptional cases of great force, the fracture extends across the anterior surface of the petrous, into the internal auditory meatus. Even moderate blows produce radiating fractures which cracks off the roof of the middle ear. The blood flows into the tympanic cavity without rup-

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The Author

Dr. Hofmann, Cincinnati, Ohio, is a graduate of University of Cincinnati College of Medicine, 1915; fellow American Academy of Oto-Laryngology; attending oto-laryngologist, oto-laryngology service and clinician, oto-laryngology service, out-patient dispensary at Cincinnati General Hospital; associate attending staff at Good Samaritan Hospital, oto-laryngology service.

turing the drum, and appears as a bluish mass, in the middle meatus. (E. D. D. Davis).

Profuse and prolonged hemorrhage, indicates rupture of the middle meningeal artery, or rupture of the lateral sinus. Rupture of the lateral sinus does not occur often. However, the pressure within the brain and the increased intracranial tension are sufficient to arrest venous bleeding. When the upper half of the drum is destroyed, free blood flows into the external auditory canal, also through the eustachean tube, into the naso-pharynx. The external auditory canal is the vent for intra-cranial hemorrhage, which should never be packed, at least not very tight.

Sometimes, cerebro-spinal fluid is present, which means that the sub-arachnoid space is open to infection which may terminate fatally. Cerebro-spinal fluid has a very irritating effect upon skin, hence it is advisable to cover same with a very mild, sterilized petroleum, to protect it.

When chronic otitis media purulenta existed prior to injury, there is great danger of meningeal infection, and the prognosis is correspondingly unfavorable. Mastoid infection usually follows fracture.

George Mackenzie figures that 25 per cent of basal fractures pass through one or both petrous process. Clinically blood in eustachean tube coagulates readily, if there is no over-riding of the linear fracture. Blood plus cerebro-spinal fluid flows for 60 hours or longer, the fracture is over-riding, with laceration to the dura. Prompt surgical interference is advisable.

Upon admission of the patient to the hospital, which is usually by police department, and being admitted to the receiving department, he should be made as comfortable as possible, X-rays made promptly, skillfully and with dexterity. The clerical admission history and other unrelated medical data should be dispensed with. If the patient is conscious or semi-conscious a few questions in regard to the cause of injury, whether there was vomiting, hemorrhage, or momentary loss of consciousness is sufficient.

EXAMINATION

Diagnostic signs and symptoms of acute brain injuries. (Connors & Wright) (Acute craniocerebral injury diagnosis).

Positive signs (anyone is absolute) 1—X-ray positive for skull fracture—pneumocephalous. 2—direct visualization of fracture. Compound fractures at operation or autopsy. 3—Escape of spinal fluid from nose or ear.

Probable Signs. 1—Blood in cerebro-spinal fluid. 2—Bleeding from ear or ears.

Presumptive Signs and Symptoms. 1—History of trauma to head. 2—Unconscious or history of unconsciousness. 3—Paralysis of cranial nerves (monoplegia, hemiplegia, paraplegia). 4—Convulsions. 5—Abnormal reflexes. 6—Traumatic delirium. 7—Urinary incontinence. 8—Eye signs. 9—Glycosuria and hyperglycaemia. 10—Scalp lacerations or hematomas. 11—Ecchymosis of eyelids.

Often persons injured have been given whiskey by someone anxious to help, which was recorded on the history chart as an alcoholic.

We must rule out drugs, poisons, syphilis, diabetes, uremia, cerebral hemorrhage, embolism, neoplasm, chronic subdural haematoma, spontaneous subarachnoid hemorrhage in differential diagnosis.

The routine diagnostic procedures of Connors & Wright:

1—Careful history if obtainable.

2—X-ray of patient upon admission, unless in shock.

3—Immediate examination of patient by member of visiting staff, irrespective of hour of day or night, if unconscious or apparently serious in any way, make careful head examination for compound fracture, or inconspicuous scalp haematoma, may aid in localizing a contrecoup laceration.

4—Spinal tap at once, cell count in spinal fluid. Red blood cells in spinal fluid with negative X-ray makes a tentative diagnosis of intracranial injury without skull fracture. When the X-ray is positive the number of red cells in the spinal fluid gives a fair index degree of sub-arachnoid hemorrhage.

5—Make a second spinal tap and cell count from eight to 24 hours after the initial tap. If good stereoscopic X-ray plates are negative and the two spinal fluid specimens contain no red cells, and in the absence of other evidence, the patient is not considered to be a case of craniocerebral injury.

6—Study the patient for the development of presumptive signs or symptoms.

7—Readings of the cerebro-spinal fluid pressure are made, but they are not of much diagnostic importance. Primary hypotension of spinal fluid makes the prognosis grave in proved injury cases.

8—White blood count and urinary analysis on all cases. Complete blood chemistry study and especially blood sugar determination on all unconscious patients. Blood and spinal fluid Wasserman tests on all admissions.

9—A careful examination for associated injuries.

10—Neurological and opthalmological examinations on all patients.

Dandy and Sachs object to these diagnostic lumbar punctures in these cases, stating that it

is too dangerous for the patient and nothing is gained.

Connors and Wright state: "The measurement of spinal fluid pressure for the first few days is relatively unimportant, but the number of red blood cells in the spinal fluid is an index of the degree of cerebral injury, and at present is the surest way of diagnosing sub-arachnoid hemorrhage, cases exhibiting combined extradural and sub-dural hemorrhage also of tremendous value in diagnosis of epidural hemorrhage, of uncomplicated variety, also intramedullary hemorrhage with marked clinical signs, the diagnosis of this lesion is based on the fact that the fracture line if present, is away from the cranial grooves of the middle meningeal arteries and there is a very low count of red cells, in the spinal fluid, entirely disproportionate to the clinical signs and symptoms.

Many cases come into the hospital unconscious from alcohol, with or without history of trauma. Usually 50 per cent have no cerebral injury. Without spinal tap for red cells, no diagnosis can be made.

Low red blood cells count may be caused by shock, or injury that interfered with the circulation of spinal fluid, and there is a lessened diffusion of cells. In pure extradural and pure intradural hemorrhage, the red cell count is persistently low, averaging 1000 red blood cells or less. The Queckenstedt tests in 500 cases showed no subarachnoid blood, even in cases where the spinal fluid seemed to be pure blood.

Most cases that were conscious upon arrival on the wards recovered. And majority of those who regained consciousness shortly after their arrival got well. Dandy states that a deepening coma is undeniable evidence that the patient is getting worse. Acute alcoholism, present in 50 per cent on admission, which makes early diagnosis of unconsciousness, due to cerebral injury, extremely difficult. Urinary incontinence in a non-alcoholic patient on admission, is sign of serious brain injury and its late appearance is of grave diagnostic significance, and is an important sign in an alcoholic patient after effects of alcohol have worn off. Incontinence of feces never seen, but has been reported by Dandy.

TREATMENT

Gentleness by ambulance drivers, rest, good food, good nursing, and treatment for shock. Operations for extradural or suspected epidural hemorrhage, certain compound fractures, some depressed fractures. Frontal sinus fractures when dura is torn, and subacute subdural hematoma should be done only after the seventh day. Keep warm (to combat shock and pneumonia); keep mouth and throat clean, ice bags to head; maintain fluid level, no morphine or avertin.

Connors and Wright report 1760 cases, operative period, mortality 52 per cent; conservative period, mortality 45 per cent; late conservative period, mortality 21 per cent.

Trotter describes concussion as clinical history of unconsciousness. **Vance** shows 139 cases at postmortem, where death is due to cerebral concussion. This high percentage may be due to the fact that deaths from cerebral concussions are immediate and the patients do not reach the hospital alive. Most fatal cases die within the first 48 hours of traumatic cranio-cerebral edema.

Deaths result from rupture of cerebral artery, or laceration of a venous sinus or intra-dural hemorrhage. Sub-arachnoid hemorrhage which is the usual **non-fatal** variety of hemorrhage, is due to ruptured veins and capillaries. This subsides spontaneously because intra-cranial pressure is almost the same as venous pressure.

Decompression operation should be performed only when other methods to decrease spinal fluid pressure have failed. Many noted surgeons and otologists object to the routine injection of hypertonic solution of glucose, with or without insulin, because it overtaxes the brain that is already damaged and overworked. At first the brain volume shrinks, then this early fall in intra-cranial pressure again rises above the previous pressure level.

At the Cincinnati General Hospital, I personally examined at random the history charts of 108 patients, with basal skull fractures.

Forty-six showed fracture symptoms involving the ear or petrous process; 27 had hemorrhage from ear, nose or throat; 12 deaths; secured eight postmortems; 14 bloody spinal fluid; five decompressions, of which two died. Eighty-three were clinically diagnosed as fracture cases, which was very good. In 14 cases, X-ray was positive for fracture; five had impaired hearing.

Dizziness (Grove), subjected sensation of disturbed relations with environment, in some definite plane, vertical, horizontal or oblique, caused by the slightest irritation of peripheral portion of vestibular nerve, which includes end organ and extra cerebral portion of the auditory nerve. The sensation is associated with extreme disability, accompanied by nystagmus, falling, staggering gait, nausea and vomiting. Vertigo may be caused by tumors, infections, toxins, etc. Vertigo from end organ is short lived.

With a dead labyrinth, considerable disability may later become somewhat compensated. Such patients are subjected to errors of sense of location in space, in the dark, and sudden changes in position may bring on an attack of vertigo. (Murphy).

Very few malingerers can describe the typical phenomenon of vertigo turning or tactile.

Fenton states that the vestibular function no

longer holds the commanding position in aviation that it did during the last war. The vestibular tests are of value only in determining the viability of the labyrinth, and should be limited to this, as far as the question of compensation is concerned in evaluating vertigo following head injuries. The percentage of symptoms that could be exaggerated, was no greater in cases receiving or not receiving compensation. Be conservative in interpreting neuro-otologic findings, in terms of percentage or loss of function.

The hearing centers in the temporal lobe are bilateral and require a bilateral lesion to produce deafness, which varies with the extent of damage. The cerebral end of the auditory nerve lies in the higher center in Heschls' gyrus, in the temporal lobe.

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632 VINE STREET.

Nasal Surgery and Allergy

As to the surgical management of the nose and paranasal sinuses during allergy, one must be sure that an accurate diagnosis has been established after a careful study of the history and clinical laboratory findings. From these findings, the presence or the absence of infection, both acute and chronic, can be determined. Primarily by the specific treatment, the allergic condition should be brought under control. When this is accomplished, and there remain no allergic symptoms, then and only then should surgery be instituted, except in rare instances.

After repeated examinatitons, if there are still present any gross polyps in the middle meatus or polypoid hypertrophy of the middle turbinates, these should be removed. If there is a deviated nasal septum which seems to obstruct the breathing, this should be corrected. Treatment of the sinuses should be based on cytologic studies and X-ray examination, using the same indications for conservative and radical surgery, as in any chronic infection. Here again I want to warn against any surgical procedure during the pollenating period or when there is an acute allergic upset. We have found that only in very isolated cases has surgery accomplished any benefit on allergic manifestations, and there is always a possibility of the trauma of surgery producing asthma in an allergic individual who has never had any asthmatic symptoms.

I want to emphasize that the reasons for failure in the treatment of these cases are usually faulty diagnosis, inability to find and eliminate the offending allergens, and poor cooperation of the patient. I do not think treatment should be carried out half-way. The patient should be made to understand that results cannot be accomplished rapidly, that diagnosis and treatment are painstaking and time-consuming. The loss of faith in allergic therapy is due to failure on the part of the physician and to poor cooperation on the part of the patient.—J. D. Roberts, M.D., Longview, Texas; Tri-State Med. Jour., Vol. 11, No. 4, January, 1939.

Lung Abscess

While bronchiectasis is characterized by chronicity of events, lung abscess nearly always begins as an acute involvement. Its chronicity occurs from the lung's inability to rid itself promptly of infected material, while the bronchiectatic lesion is largely produced by the very process of chronic elimination. It can be estimated that an abscess becomes chronic in somewhat more than one to two months of duration of illness. The average duration until death or recovery in this series of cases was slightly over 4 months. Etiological factors were equally divided between aspiration from extrapulmonary infections and other causes. Symptoms depend upon the virulence of the invading micro-organisms and the local tissue response but chiefly upon the degree of bronchial connection with the abscess and the resulting possibility of spontaneous drainage. Physical findings comprise the whole array of pulmonary signs.

The primary aim in treatment is to assure adequate drainage of the abscess. If this cannot be done promptly, surgical drainage should not be delayed. On the other hand, most abscesses which refuse to heal spontaneously, quickly become localized and can be operated with greater safety than in the acute stage. Postural drainage by using a bed which can be tilted in all directions has been used successfully by the authors. The mortality was 50 per cent.

Preventive measures should include education of the public and the medical and dental professions to promote dental care, warning against unwarranted and unskillful tonsillectomies and tooth extractions, and preventing upper respiratory infections.—Robert G. Bloch, M.D., and Byron F. Francis, M.D. Am. Rev. of Tuberculosis, Vol. XXXVIII, No. 6, June, 1938.

Evipal Soluble: An Intravenous Anesthetic

MILDRED WHITE GARDINER, M.D.

THE introduction of evipal for clinical use as an intravenous anesthetic has been so successful, so simple to use and so remarkably free from accidents that while the report of 100 cases is small, its usefulness in many types of cases has been widely established throughout the world.

Intravenous anesthesia was introduced in France in 1872.[1] It was not very successful but a revival of interest occurred with the introduction of the barbiturates. Sodium amytal was used first in 1929. It is still frequently used. Evipal was first used in 1932. The name evipan was given it and this name is still used on the continent. The American name was chosen to follow similar barbiturates such as allonal and luminal. Pentothal sodium, a similar preparation, is also used intravenously, and seems to be as successful as evipal. Lundy considers them as acting very much alike.[2] However my experience has been limited to evipal. There are on record 250,000 cases in which evipal has been used. It has been used extensively in Europe and many writers have reported large series of cases without fatalities. A total of those reported amounts to over 50,000 cases and in only one case was a death attributed to the drug. The British Medical Research Council has made an extremely favorable report of the safety of evipal soluble.[3] Jones says[4] "the mortality from the use of evipal is below the small percentage of unexplained anesthetic deaths from other anesthetics."

Evipal is chemically N-methylcyclohexenylmethylmalonylurea. It is a coal tar derivative of the barbituric acid group. The source primarily is urea, formed from the burning of coal. There are many products available because barbituric acid has two terminal hydrogens which are very reactive, permitting many substitute products. Substances formed from barbituric acid are all sedative and hypnotic, but not equally so. Bastedo says that evipal is very rapid in action and is used for quick anesthesia and quick recovery."[5]

TECHNIQUE

Evipal is supplied as a powder in ampules containing one gram or 15 grains, accompanied by an ampule of 10 cc. of distilled water in which the powder is dissolved just before use. The solution when made up is a 10 per cent solution, each cc. containing 0.1 gram of the drug. A snort bevelled intravenous needle as small as possible is used for introduction. The cubical fossa is prepared as for any intravenous work. It is best to use an arm board because the needle is kept in place and the arm must be steady. I prefer a 10 cc. syringe. It is easier to hold and manipulate. There are many case reports using more than 10 cc. but recent reports favor small amounts.[6] Lundy states, "It is not a safe agent for prolonged anesthesia even by the fractional method of administration."

All preparations for operations are completed before any injection is made. That is, the surgeon is ready, and the patient prepared and draped. For best results a preliminary narcotic is given. This seems to be the general opinion.[7] The patient requires less evipal and sleeps longer afterward. A small butterfly of cotton attached to the upper lip is an aid in following respirations. This moves with each breath. Respirations become soft and shallow as anesthesia deepens.

Once the needle is in the vein, the tourniquet is removed and the patient is instructed to count slowly about one count every two seconds. The anesthetist counts with the patient to determine the rate, at the same time steadily injecting about 2 cc. of evipal. The patient usually ceases to count abruptly at the count of 14, sometimes at 10 or 11, others at 20. This rate of speed of anesthesia is a gauge for the rest of the solution. That is, the sooner the anesthetic has taken effect the less is required. As a general thing the same amount is then injected which was required to put the patient to sleep in the first place. The patient is then considered ready for surgical procedure. Sleep comes very fast, the count stops short, the jaw relaxes, drops and the patient may snore. There is no excitement stage, the transition from consciousness to unconsciousness is so rapid that some patients are never aware they went to sleep. There are no sensations impressed

Submitted March 9, 1939, at request of the Editor.

The Author

● Dr. Gardiner, Middletown, Ohio, is a graduate of Ohio State University College of Medicine, 1925; member American Society of Anesthetists; International Anesthesia Research Society; Ohio Society of Anesthetists. Member of anesthesia staff of Middletown Hospital.

on the mind, no talking, and the return to consciousness is as agreeable. Sometimes the patient continues to count as he awakens, taking up the count where he left off.

An assistant is necessary for any operation lasting any time at all. The anesthetist has the needle in place, the arm to keep steady and no hands to hold the relaxed jaw up or to put in an air way if needed. I have never needed one. As respirations deepen it is a positive sign that the anesthesia is becoming light. At this time from ½ cc. to 1 cc. of the solution is injected, and this is repeated from time to time. Sometimes slight muscle movements are made, a sure indication for more anesthetic.

DURATION OF ANESTHESIA

The duration of anesthesia varies. As a rule 20 minutes is a maximum for work by the surgeon, using 10 cc. of evipal. It is very easy to supplement another anesthetic as nitrous oxide or ether, the patient never is aware a change is made. Evipal is used abroad in many instances just as an induction anesthetic. There are many operations requiring less time than this 20 minutes so that the time element is not important. Evipal can be given in offices but the personal element has to be considered and no two patients react alike afterward. Some are awake and fully aware of where they are after 10 cc. Others are sleepy and need to sleep longer after two or five cc. In no instance was a patient trusted to go home alone afterward, but they walked to cars, talked and were normal. Others do not remember very much what was said, and sleep after returning home for a short time. The preoperative narcotic keeps the patient asleep longer and is advisable in almost every case. This may be atrophine and morphine or scopalamine and morphine, or morphine alone. The dose usually given of morphine is ⅙ or ⅛ gr., one-half to an hour before operation.

This report is based upon my first hundred anesthetics with evipal. The time covers a period of four years. Ninety per cent were given in Middletown Hospital the other 10 per cent in doctor's offices.

The ages varied in these cases. The youngest was 10 years old. He had several teeth extracted in a dentist's office. Five cc. of evipal was used. He walked to the car, went home and slept a litte while, ate his supper and was ready for a movie that same evening. Hudson reported 100 cases in which he used evipal on children.[8] No patients over 60 were given it in this series.

The amount of solution used varied greatly. Some bed procedures as in removing painful dressings only required a minimum of 2 cc. Others varied from 4 to 10 cc. Some very minor surgery requiring as much as 10 cc. before the surgeon could work satisfactorily. The prenarcotic seemed to help by making the requirement less for the solution. Three patients were given additional anesthesia, two ether, one nitrous oxide. One appendectomy, a case of arrested tuberculosis was given in addition to morphine and atropine a local anesthetic first, then evipal was injected as the deeper tissues were incised. The patient slept a half hour, awakening as she was returned to her own bed. One extremely poor risk patient was given evipal twice. Once to remove a wire from her femur, the second time for amputation of the leg. She was a diabetic colored woman. She did not recover but her death two weeks later was in no way due to evipal.

The duration of anesthesia is unpredictable. Some patients are awake and talking in 10 minutes after 2 cc. have been given. Others sleep one or two hours following, a very natural sleep. In most instances the patient can be aroused but prefers to return to sleep. Coramine has been recommended to stimulate respirations and to awaken the patient. In my series coramine was tried a few times. The pulse is made stronger and respirations are deeper but there is little difference in the rate of recovery.

Th patient's own reactions to evipal are remarkable. Everyone liked it and if given a choice for a second time requests it. Some will not believe they have been put to sleep. Patients like the freedom from nausea and vomiting which as a rule follow other anesthetics. In my series three were slightly nauseated without vomiting, and two patients vomited. This may be due to the premedication, as most anesthetists report no vomiting in their series of cases.

There were no accidents in these cases. The only death was the colored diabetic two weeks after the operation. The whole series is noteworthy for lack of complications, perhaps because only good risks were chosen. Evipal is contraindicated in arteriosclerosis, old age, chronic invalidism with emaciation, debility, pronounced liver, kidney, lung, and heart disease.

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Use of Sulfanilamide in Acute Mastoiditis of Streptococcic Origin

WALTER A. NOBLE, M.D.

I WISH to report 24 cases of acute mastoiditis in which sulfanilamide was used successfully in all but one case, and all of which were due to streptococcus hemolyticus except one, which was streptococcus viridans.

The age of the patients ranged from three to 54 years, 16 of whom were under 10 years. The average length of time between onset of the acute otitis media and the appearance of swelling behind the ear was four weeks.

There was a history of previous attacks of otitis media in 10 of the 24 cases. History of measles preceding the otitis media was given in five of the cases, with scarlet fever as a predisposing cause in only one case. A bilateral mastoidectomy was necessary only once in this series.

COMPLICATIONS BEFORE MASTOIDECTOMY

In two of the 24 cases the spinal fluid presented a pure culture of streptococcus; one, hemolyticus; and one, viridans. Symptoms of acute petrositis were present in four cases, but only one presented Gradenigo's symptom complex. One had a positive blood culture, numerous chills, and extremely high temperature (106°) before the mastoidectomy was done. Of the 24 cases 16 presented a sub-periosteal abscess over the diseased mastoid at time of the first examination.

POSTOPERATIVE TREATMENT

The drug prontylin was given by mouth, in divided doses every four hours, on the ratio of one gram for every 20 pounds of body weight, each 24 hour period; with a maximum of 4.8 grams per day. Just as soon as the temperature became subnormal, or cyanosis of the finger nails or lips was perceptible, the medicine was discontinued. No ill effects were apparent in this series of 24 cases.

In every instance all other medication was discontinued while prontylin was being administered. The drug was given in some instances before a simple mastoidectomy was done, but usually after operation.

Three of the 24 cases had acute recurrent trouble three to six months after the simple mastoidectomy, which necessitated myringotomy and incision of the mastoid wound.

The average number of days in the hospital following the simple mastoidectomy for the entire 24 cases was 11 1/6 days. There was complete recovery in all but one who died of acute purulent meningitis (streptococcus viridans) and diabetes mellitus.

Submitted March 9, 1939.

The Author

Dr. Noble, Lima, Ohio, is a graduate of Starling-Ohio Medical College, 1913; fellow American College of Surgeons; member active staff, E.E.N. and T., Lima Memorial and St. Rita's Hospitals; vice-president and member of executive committee of staff at St. Rita's Hospital.

CONCLUSION

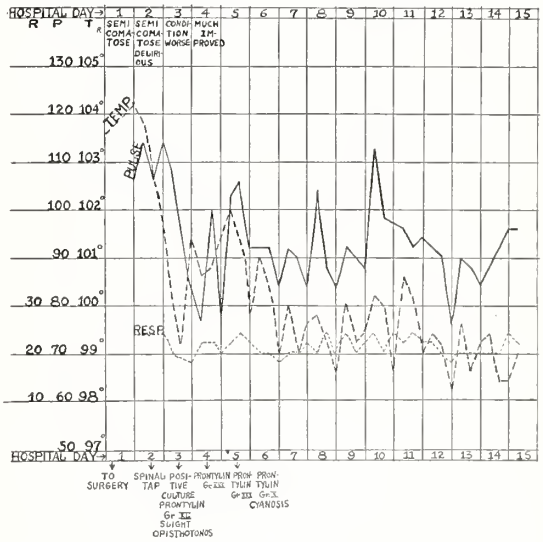
Prontylin quickly reduces a high temperature to a sub-normal degree if given in large enough doses. The temperature may return after prontylin has been discontinued, if adequate drainage has not been provided.

A serious complication, before or after ear surgery, even if a streptococcus hemolyticus culture has been obtained, has almost a miraculous recovery when sufficient prontylin has been administered by mouth.

Streptococcus viridans does not seem to respond in the least to the administration of prontylin internally.

Blood transfusion and all other supportive measures should not be forgotten in these cases. I don ot believe that prontylin alone can do the work, but it is indeed a wonderful aid.

MASTOIDITIS WITH STREPTOCOCCIC MENINGITIS TREATED WITH SULFANILAMIDE



Status of Oral Pollen Therapy of Hay-Fever and Asthma

JONATHAN FORMAN, B.A., M.D.

AS the pollen season for 1939 begins, it is important that we take stock of the suggestion that we feed the victims of pollenosis dried pollens or pollen extracts instead of producing a tolerance to the offenders by carefully graduated injections of the proper pollen extract. During recent years, many allergists have conducted experiments upon themselves and some of their patients with this method of treatment. Last year, some of the commercial biologic houses distributed "sets" for oral pollen therapy of hay-fever to literally hundreds of physicians to try upon such of their patients as would be willing to take them. According to the *Journal of the American Medical Association* five such concerns are now promoting to the medical profession the use of these preparations for this season. These are: Allergic Research Laboratories, Phoenix, Arizona; Pollen Laboratories, Phoenix, Arizona; Hollister-Stier Laboratories, Spokane, Wash.; G. H. Sherman Company, Detroit, and Eli Lilly and Company, Indianapolis, Indiana. In at least one instance, this promotion goes farther than this because in many drug stores through out Ohio last fall, attractively prepared advertising displays occupied a prominent place on the show counter of certain drug stores along with those of the more popular patent medicines. It is obviously intended to appeal to the layman's eye and unquestionably makes for self-medication with what is potentially the most dangerous substance known to science—an atopen.

Now, what is wrong with this situation? Not from the viewpoint of the allergists or even that of the family physician but from that of public good?

IS IT SATISFACTORY?

In the first place, all experts are agreed, it has not been established definitely that the results obtained by oral pollen therapy are satisfactory and almost all who have used it, emphasize that it is not to replace the standard injection method. In this connection, I am reminded of another cure which swept over the country and was promptly forgotten. A well-known professor of therapeutics in one of our better medical schools secured satisfactory relief for himself by the use of rather large doses of nitro-hydrochloric acid. He then collected the experiences of other physicians with acid therapy until he had figures of satisfactory results from a large number of widely distributed physicians.

Yet when the method was put to the test of general use throughout the years it failed. This same fallacy exists now in the figures which are brought forward to support oral pollen therapy. Mind you I am not now attacking the method but I am calling your attention to the general uselessness of our medical statistics. One case is collected here; five cases from there; and 15 from over there. All are added together to compare with what? To prove that almost as good results can be expected from oral therapy as from injection therapy with pollen extracts. Such figures no matter how awesomely impressive they may be arranged, merely set forth a clinical impression. The use of oral pollen therapy may become an established procedure in the treatment of hay-fever or it may prove to be as disappointing as acid therapy or the use of potassium chloride. We should not endorse its promotion at this time.

WARNING

Incidentally, the figures supporting the recognized injection of pollen therapy are no more valid. Time has established the empirical fact that injection therapy is an excellent way to treat hay-fever. The Chicago Allergy Society is therefore to be congratulated for its stand against the exploitation of products for the oral therapy of hay-fever. The resolution adopted by this society is: "The members of the Chicago Allergy Society, partly from their own experience and partly from a survey of both the published and some of the unpublished experimental and clinical results of oral pollen therapy, believe that the evidence of beneficial effect is at present not sufficient to warrant the commercial promotion of material for oral pollen therapy. Because of their controversial and contradictory nature, the published results of oral pollen therapy are inadequate to justify the commercial promotion of such a product. In addition, our investigation indicates that many men who have used pollen therapy have failed to publish their work because of the unsatisfactory results obtained. We therefore urge that the commercial promotion of oral therapy should be deferred in the interest of the public and of the general practitioner until further experimentation now in progress has been reported."

My personal impression today is that oral pollen therapy in grass-sensitive cases which are always easier to treat the results are better than in weed-sensitive cases; that children respond better than adults; that reactions may frequently be troublesome, and even dangerous. Most of these

This is one of a series of editorial summaries on the management of certain diseases.

reactions, it is true, are only local reactions but they occur in the mucosa of the alimentary tract. The symptoms are violent cramps, nausea, vomiting, and intensive diarrhea with mucus and often blood in the stools. The patient therefore is prostrate for several days, after which he is usually through with the treatment and too frequently with the physicians who gave it to him. To these local symptoms may be added a constitutional reaction consisting of hives, hay-fever and asthma, one or all. On rare occasions true allergic shock may be induced.

There is no doubt therefore that pollen and pollen extracts can be absorbed when oral pollen therapy is given. It is also reasonable to assume that if properly graduated doses could be fully absorbed in this way adequate tolerance to protect against the seasonal exposure could be gained. The problem, however, is how are you to control the dosage? One dose due to favorable circumstances will be fully and properly absorbed. Another may not be absorbed at all, while still another may be so completely digested before its absorption that all immuniological properties are lost. Yet the schedule calls for a still larger dose the next time which for all that we know may now be three or four times as large as the last shocking dose. This will explain our unfavorable reactions both local and constitutional but it will not do the patient's progress any good. If we were dealing with the toxic and pharmacologic effects of a drug this might not be so bad but we are dealing with substance which belongs in the group of the most powerful poisons known to science—an atopen in a specifically sensitized human being. There is always the possibility that our treatment therefore will do more harm than good. This harm varies all the way from a loose bowel movement and nausea to death itself.

It should be clear therefore that the purchase of this material by the layman with its convincing directions found in certain packages should not be permitted to the undiagnosed and unsupervised victim of something that looks like hayfever. No patients should be treated with any kind of pollen until it is established that he is sensitive to the pollen and that particular sensitivity is the cause of his trouble. Only those pollens should be given and not several others to which others may be sensitive but not the patient.

We therefore join in the warning that oral pollen therapy so far as we know today is not a substitute for the methods now in use and that it is not to be undertaken lightly. If you undertake its use, remember that it is not a recognized procedure and that the Council on Pharmacy and Chemistry of the American Medical Association has not accepted any pollen preparation proposed for oral administration. For your own protection as well as that of your patients interests, you are obligated to explain to your patients that they are taking an experimental medication, that they may have reactions, that the amount of the pollen in active form that is absorbed from any single dose is always uncertain and that the results here in Ohio where we have such a heavy crop of pollen may not be satisfactory at all. So the school teacher cannot plan on being on the job when school opens in the fall nor can the business man be assured that he need not drop everything and get out of town just when he is beginning his annual inventory.

With our recent experiences in the United States with the dangers inherent in any new and unproved method of treatment, we physicians, as a group should leave oral therapy to the experts for further study and to our patients who propose to buy a box from the corner store and try it, we should issue a strong warning as to the present status of oral pollen therapy.

Acute Rheumatic Fever In Children

Preliminary work indicates that out of 1,000 children suffering an illness diagnosed as acute rheumatic fever, 59 died within the year, 51 of the deaths being due directly to the attack of acute rheumatic fever and eight to some other disease or condition; and that the deaths due to acute rheumatic fever were assigned in one-third of the cases to this disease and in two-thirds to some form of heart disease. These figures are one indication of the seriousness of the disease.

For another measure of the importance of the condition we must go beyond the sample of cases nursed and examine the mortality figures among our policyholders generally. These indicate that acute rheumatic fever is much less prevalent than formerly. The death rates for both acute rheumatic fever and for chronic endocarditis and valvular heart disease of young persons—heart conditions where practically all of the fatal cases are probably of the rheumatic type—have declined almost continuously in recent years. The standardized death rate for acute rheumatic fever fell from 4.0 per 100,000 in 1921 to 1.9 per 100,000 in 1937. The standardized rate for chronic endocarditis and valvular heart disease of persons ages 1 to 24 dropped from 17.3 in 1921 to 5.9 in 1937.

Despite this drop, acute rheumatic fever is still important as an infectious disease. In a representative year deaths from acute rheumatic fever and rheumatic heart disease outnumber the combined deaths from measles, scarlet fever, whooping cough, diphtheria, meningococcus menigitis and acute poliomyelitis.—Statistical Bulletin, Metropolitan Life Insurance Company, March, 1939.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

THE CYTOLOGY OF SPUTUM

WE are all apt to assume that everying that goes into a sputum flask is sputum. Saliva, post-nasal pharyngeal secretions which have trickled down the throat, even gastric contents resulting from retching may be confused with true sputum. The word will be taken here to mean the material which coughing ejects from the respiratory passages. Cytological examination often enables us to determine (a) from what part of the respiratory tract secretion comes and (b) what its nature is.

Specimens should be as fresh as possible, because cells degenerate more quickly than bacteria and a stale specimen is valueless for cystological purposes. The next thing is to select suitable portions for examination. There is only one safe rule, viz., to select every portion which looks different in appearance from any other portion—mucoid, purulent, pigmented, blood stained, gelatinous, etc. The purulent portion is the least useful. The specimen may be poured into a wide dish (e.g. an ordinary bacteriological petri-dish) and placed on a light or dark background as required. It is not enough to take a wild plunge at an evil-smelling specimen with a platinum loop and to trust to luck. Each portion should be picked out with sterile forceps, and placed upon one end of a slide. A thin film is then made with the edge of another slide in the same way that one spreads a blood film for malaria parasites. In selecting the portions it is a good plan to go over the specimen carefully first with a hand lens. The technique used by the writer for staining films is a modification of that of Dudgeon and Wrigley:—(1) Fix wet films in Schaudinn's solution (absolute alcohol, one part, saturated aqueous solution of perchloride of mercury, two parts, with 3 per cent acetic acid added immediately before use) for five minutes. (2) Pour off fixative and cover with 0.5 per cent iodin in 70 per cent alcohol for two to three minutes. (3) Drain off this solution and cover with the following solution for two to three minutes: Sodium thiosulphate, 7.5 gm.; 96 per cent alcohol, 100 cc.; distilled water, 450 cc. (4) Wash and stain with undiluted Delafield's hematoxylin for two to three minutes. (5) Pour off stain and differentiate with 1.0 per cent hydrochloric acid. (6) Counterstain with Biebrich's scarlet or orange G. (7) Dehydrate with absolute alcohol, clear with xylol and mount in neutral balsam.

The cells encountered may be classified into three groups (1) cells which have migrated from the blood stream; (2) tissue cells from various portions of the respiratory tract; (3) abnormal cells resulting from various types of growth.

The cells of the first group are leucocytes and erythrocytes and they are found in practically all sputa. The neutrophil polymorphonuclear cell is an essential part of the tissue response in all suppurative diseases of the lung. It is fundamentally a phagocyte and frequently contains organisms. After lipiodol administration it will show engulfed oil droplets also. The predominance of the lymphocyte, which is such a useful diagnostic sign of tuberculosis in other exudates, is in the writer's view quite valueless in sputum. Lastly there is the eosinophil cell commonly found in asthma. Of the tissue cells, the commonest is the transitional squamous cell which covers the anterior surface of the epiglottis, the upper half of the posterior surface, the aryo-epiglottic folds and vocal cords and the pharynx. This cell is generally found in association with large numbers of the organisms of the catarrhal infections. A cytological picture of the kind is common in the chronic catarrhs of the winter months. The ciliated columnar cell of the epithelium of the respiratory tract extends from the trachea down to the small bronchi and may desquamate and appear in the sputum when the mucosa is ulcerated. It is often seen after the passage of a bronchoscope. The lining cells of the respiratory bronchioles and alveolar ducts are of a low cuboidal non-ciliated type and they are not easy to distinguish from other mononuclear cells in sputum unless they are adhering together in plaques. None of the cells in this group is a phagocyte. There is, however, a cell, conveniently considered here, which does phagocyte, i.e., the macrophage. It masquerades under many names, the heart failure cell, the dust cell, etc., but is really part of the retriculo-endothelial system and is an expert phagocyte. It is found in pulmonary tuberculosis, the pneumoconioses, chronic congestive failure and pulmonary edema, and may contain tubercle bacilli, carbon pigment, red blood cells or hemoglobin pigment, as the case may be. The refractile particles of quartz or asbestos found in the pneumoconioses cannot be seen in the ordinary stained specimen.

With regard to the third group, excluding the hepatic cells of ruptured liver abscess and the lymphadenoma cell of Hodgkin's disease which the writer has only seen in sputum on one or two occasions, the cells of this group are neoplastic.

Single copies of Diagnostic Standards may be obtained free from Ohio Public Health Association or the National Tuberculosis Association.

In the case of secondary growths of the lung, any form of cell which is found in the primary growth may, of course, appear in the sputum, but in the primary malignant growths of the lung the cells are for practical purposes of two kinds only, the oat-cell carcinoma and the squamous carcinoma cell. The oat-cell carcinoma is generally associated with a primary massive growth of the mediastinal glands and although this growth exerts great pressure on the main bronchi, it does not as a rule ulcerate and break down. The oat-cell, therefore, is not commonly found in sputum. Moreover, it is difficult to differentiate from granulation tissue cells and fibroblasts from the bronchial wall. This cell, therefore, should be diagnosed with the very greatest circumspection.

The squamous carcinima cell is derived from bronchial growths. It is not sufficiently realized that bronchial carcinoma breaks down into cavity with even greater regularity than a tuberculous lesion. A single pulmonary abscess developing insidiously in a person of middle age without obvious cause is more likely than not to be a breaking down bronchial carcinoma. This cell can be found readily in the sputum but must be carefully distinguished from the normal transitional squamous cell of the upper respiratory tract. It is usually found adhering to its neighbors in small plaques, the individual cells of which exhibit marked diversity of form and size. In the early stage of its growth the cell shows a rounded nucleus with an open chromatin network, a large nucleolus, and a more or less clear cytoplasm with a cell envelope attached to its neighboring cell along the contiguous border, and prickle-cell arrangement. As the cells develops, vacuolation takes place and the nucleus is pushed to one side until it eventually comes to occupy a position near the cell envelope and is squeezed into a horseshoe shape. Keratinisation of the cell follows and the cytoplasm stains darker in consequence. All these stages may be found in the different cells of one plaque, and when keratinisation occurs it is possible to identify individual squamous carcinoma cells irrespective of plaque formation. Cell nests are rarely found in sputum films. The carcinoma cell does not phagocyte—a cardinal point in distinguishing it from the macrophage with which it is very easily confused in the early stage of neoplastic growth.

Space does not permit of a description of wet films and of frozen and paraffin sections, but the stained film method outlined above will amply repay careful study. It is possible thus to make a diagnosis of asthma, bronchial ulceration and chronic pulmonary edema, whilst it is of the greatest value in detecting bronchial carcinoma and will even enable one sometimes to gain corroborative evidence of pulmonary tuberculosis. The broad way to failure is to take the first portion of sputum which presents itself; the straight and narrow way to success is to go over the specimen with a hand lens and select the particles for examination with discrimination. Experimentia docet.—S. Roodhouse Gloyne, Pathologist, The London Chest Hospital. Article written especially for Tuberculosis Abstracts.

Exposure of Body to Unequal Temperature

So emphatically was it impressed upon me that unequal temperature is an etiological factor in pneumonia that, when building my own small hospital years ago, I had the windows and doors to the rooms and wards placed opposite each other, leaving ample space for beds without exposing the patients to unequal temperature. Pneumonia has never developed in typhoid fever patients entering the hospital early and free from lung complications.

At one time during an epidemic of typhoid fever, the hospital ward was overcrowded and a patient, occupying a bed next to a wall 22 feet from a double window, was observed to be coughing. While examining the patient, I distinctly felt a draft of air on the back of my head and neck as I leaned over the patient to examine the side of his chest which was next to the wall. There was a stiff breeze coming through the top of the windows twenty-two feet away and was directed toward the ceiling by a contrivance at the top. The wind followed the ceiling and continued down the wall where the patient was. His position was, of course, immediately changed and he promptly recovered.

I have a patient who, if he leaves a warm room and walks outside while a cool breeze is blowing, will sneeze, and his nose will begin to discharge. But if he will turn around so that all parts of his chest are cooled equally, this condition soon stops.

I have observed frequently, and many practicing in the country have undoubtedly noticed the same thing, that while making what I considered to be the last call on a patient with tonsillitis, I would find the patient downstairs on a lounge next to the outside wall or window, not far from the heating stove. To the question, "How are you feeling?" the reply was, "I was feeling much better and thought I would come downstairs, but (making an effort to swallow) I don't feel as good as I did." This is another example of exposure to unequal temperature at an inopportune time, when the patient was not in a condition to stand it. Some people are more susceptible to this unequal temperature than others.—Charles W. More, M.D., Eveleth, Minn. Minn. Med., Vol. 22, No. 1, January, 1939.

Knowledge makes the physician, not the name or the school.—Paracelsus.

Case Record Presenting Clinical Problems

White Female, Aged 34, "with Stiffness of Joints and Legs and Backache."

HARRY L. REINHART, M.D.

THE patient was a 34 year old white female complaining of "constant stiffness of her joints from her hips to her feet", during the past month. The onset of her illness was a year ago, following a change in the type of stools in the factory where she worked. She thought the new stools caused "stiffness of her legs and backache". Cessation of her menses during this period was likewise attributed to the new stools. While the factory superintendent was on his vacation, she used a chair instead of the new stools, and all her symptoms rapidly disappeared. About eight months ago she had a laparotomy; her appendix was removed and uterine suspension with anterior fixation for uterine prolapse was done. The prolapse recurred two months ago and since then her general condition has been so poor that she has remained in bed. She "took approximately 12 chiropractic treatments", which she thought did her some good, although she continued bed fast.

Past History: There was no history of a distinct episode of rheumatic fever antedating the present illness. She has given birth to two normal children; the last child was born 12 years ago. Her best weight was 132 pounds, and her present weight 95 pounds; she has lost 34 pounds during the past six months.

Physical Examination: The patient was a well developed, poorly nourished white female, approximately 35 years of age, who did not appear acutely ill. The skin was of a sallow, pasty appearance and the mucous membranes were pale. The face was slightly edematous. No abnormalities of the skull or scalp were noted. The pupils were regular but unequal, the right being moderately contracted. They reacted well to light but poorly to accommodation. There was some pyorrhea of the posterior gums on each side. The pharynx appeared normal, and the tonsils were atrophic. The thyroid was not enlarged. There were visible carotid pulsations present and the anterior cervical nodes were enlarged but not tender. Examination of the lungs revealed increased breath sounds over the left postero-superior chest. There was a slight lag and limitation of motion of the left thorax. No rales were present. The heart was enlarged in all diameters and a mitral systolic blowing murmur was audible over the entire precordium and was transmitted to the left axilla. The blood pressure was 155/88. Examination of the abdomen revealed no abnormalities. Vaginal examination revealed a Smith-Hodge pessary in place: the cervix was small and there was a hard nodule on the right border. The external os of the cervix was dilated. The lower extremities were slightly edematous, especially around the ankles. The reflexes were physiological. There was no disturbance of vibratory or preprioceptive sensations.

Hospital course and therapy: The patient was "skin tested" with "streptolysate" and a "sensitive reaction" obtained; a course of intravenous therapy with this agent was instituted and continued for one week, the dose being increased from 0.1 cc. to 5 cc. Headache, palpitation and "light-headedness" were experienced after the first injection only, the others being followed by slight rise in temperature and pulse rate. She was given a high protein, low carbohydrate diet. Her temperature ranged between 98° and 100° during her hospital course. She was discharged after 3 weeks in the hospital and given "Feosol Tablets" for her anemia. She was told to eat large amounts of liver and red meat and to return in one month for further study and observations of the effect of the treatment.

Clinical laboratory investigations: Blood Count: red blood cells ranged from 2.63 to 3.26 million per cu. mm. Total leucocytes varied between 6,050 and 9,150 per cu. mm. Differential count; neutrophils 53 per cent to 72 per cent, lymphocytes 24 per cent to 31 per cent. Per cent of other cells was not significant. Urinalysis: specific gravity 1.007 to 1.012; albumin was present from 10 mgm. per cent to 50 mgm. per cent; leucocytes varied from 10 to 100/H.P.F.; other examinations were negative. P.S.P. renal function test revealed 10 per cent dye excretion during the first hour and 5 per cent excretion the second hour. Urine concentration-dilution test; specific gravity ranged from 1.005 to 1.014. Blood urea nitrogen varied from 22.2 mg. per cent to 30.5 mg. per cent. The blood serum albumin was 3.1 per cent (normal 4.5 per cent to 6.5 per cent) and the serum globulin was 3.0 per cent (normal 1.5 per cent to 3.0 per cent) Blood Wassermann and Kahn reactions were negative. Gastric analysis with 7 per cent alcohol revealed no free hydrochloric acid; after histamin the free hydrochloric acid was 35°. B.M.R. plus 16 per cent.

Discussion: Dr. J. R. Reeves.

The study of the case history described above reveals many important clinical deviations upon which a diagnosis might be made. Clinical symptoms alone were hardly pathognomonic of any single disease, but together with the anemia and the urinary findings enough evidence is available to suggest a pathological process in the kidneys. In addition to the nephritic changes, the cardiac hypertrophy and the mitral murmur would support the opinion that the patient had been for some time in a "rheumatoid-state," the end result of which was now apparently characterized by joint pain, anemia and nephritis.

This opinion was also held by those who saw the patient in consultation; however, as is not

This is the thirty-ninth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

infrequently the case several significant physical changes were overlooked and others not properly evaluated. In retrospect the urinary changes and the anemia were somewhat atypical for glomerulo-nephritis.

In some clinics the tissue reaction of glomerulo-nephritis, both the acute and subsequent chronic types, is thought to be similar in character to the inflammatory, but not infectious tissue reaction seen in the red, tender, swollen, arthritic joints of patients following infection by one or more of the groups of Streptococci. That is to say, nephritis of glomerular type is an inflammatory reaction which may be due to tissue hypersensitivity to the bacterial antigen or to the products of their growth in some distant area of the body or focus of infection. Absorption of such products from bacteria growing in the tonsillar lymphoid tissue is an example of this. In this connection clinicians at the Johns Hopkins Hospital have reported more than 15 patients with definite chronic glomerulo-nephritis who have completely recovered, following removal of such foci. If such a theory may explain the origin of nephritis in those individuals whose kidney changes occur concommitant with, or shortly after streptococcic pharyngitis or tonsillitis, then a sensitivity to such products should be demonstrable.

Skin tests have been used in the following manner, to reveal hypersensitivity (dis-immunity-Kahn) as contrasted with immunity. Small amounts of dilute antigen are introduced intracutaneously with proper control and the reaction noted in 5 minutes, 15 minutes, one-half hour and again in 24 hours. Any reaction reaching its height in 30 minutes is considered an immediate reaction and one not occurring until 18 to 24 hours is called a delayed reaction. Until our rather meager knowledge of the mechanism of skin reactions is more complete we consider roughly that an immediate reaction indicates hypersensitivity, whereas a delayed one suggests immunity. If no reaction at all appears, then the patient is thought to have had no experience with the antigen.

Skin tests were done on this patient using streptococcal lysed antigen combining the hemolytic, indifferent and viridans groups. A cutaneous wheal 3 cm. in diameter and numerous pseudopods and itching appeared in 5 minutes. This was considered sufficient evidence of sensitivity to warrant desensitization with the dilute antigen intravenously, which was done. 0.1 cc. of combined streptococcic antigen was diluted to 50 cc. with normal saline and given intravenously. The same material was given every day, increasing the dosage as the patient could tolerate it without temperature rise, acceleration of the pulse, headache or sweating. The dosage was gradually increased from 0.1 cc. to 5 cc. over a period of one week, which was considered sufficient for desensitization.

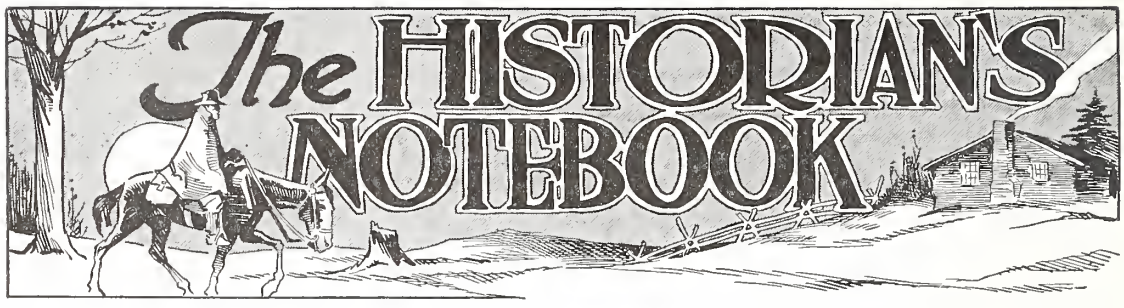
The rationale for the attempt to treat nephritis in this manner has been previously discussed; manifestly it is entirely experimental and was attempted because of the excellent effect which similar treatment produces in patients in the early stages of rheumatoid arthritis. However, the disease which this patient had, as manifested by the subsequent course, made further observation from this standpoint unnecessary and worthless and at the same time taught us a very useful lesson.

Dr. Reinhart:

One of the most enlightening phases of the study of clinical medicine, particularly with reference to hospital practice is a careful follow up study of patients discharged from the hospital. We are indebted to Dr. A. H. Schade of Toledo, Ohio, for the following information of the subsequent clinical course and autopsy of this patient. The patient was bedfast in her home for six weeks following her discharge from this hospital. During this time the pain in her hips, knees, arms and fingers was constantly present. While trying to raise up in bed by using her right arm as a support, the ribs of her right side "caved in". A few days later she thought she "dislocated her right shoulder". She was admitted to Robinwood Hospital where a diagnosis of "Hyperparathyroidism with spontaneous pathological fractures associated with osteitis fibrosa cystica" was made on the basis of the clinical history, X-ray examination and laboratory investigations. The blood serum calcium was 20.9 mg. per cent and the blood plasma phosphorous was 4.8 per cent. The blood urea nitrogen was 21.8 mg. per cent. She expired after 12 days in the hospital and at autopsy a "large parathyroid adenoma, weighing 20.5 grams and measuring 4.5 cm. x 3.5 cm. x 2.5 cm. was present in the upper thoracic cavity just below the right sterno-clavicular articulation. The marked decalcification of the bones revealed by the X-ray was confirmed; it was so marked that the bones could be incised without difficulty with a knife".

The diagnosis of hyperparathyroidism is readily made from information available by X-ray studies of the bones, particularly those of pelvis and extremities, and laboratory investigations of blood calcium, phosphorous, and phosphatase, if the condition is considered in all patients presenting the complaints of pain in the back or extremities, diffuse neuritis or arthritic pains which are intensified by motion.

Hyperparathyroidism should likewise be considered in patients presenting evidence of dehydration, nitrogen retention, anuria, anemia and evidence of acute renal insufficiency without apparent cause.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Contributions of Ohio Physicians to the Organization Work of the American Medical Association

ROBERT G. PATERSON, Ph.D.

As one looks back to the organization of the American Medical Association several queries arise. Who were the physicians of Ohio who participated in the early meetings and what part did they take? How have Ohio physicians contributed to the subsequent developments of the national organization? A brief attempt is here made to answer these questions.

At the time of the initial meeting of the National Medical Convention[1] in New York City in May, 1846, the Ohio State Medical Society had already taken its first steps toward organization.[2]

Delegates to the National Medical Convention in New York City came from medical societies, colleges and institutions. There were 39 delegates representing medical societies from 10 states; 87 delegates representing medical colleges from 7 states; and 3 delegates representing medical institutions from 1 state. No delegates of any description were present from Ohio.

When the National Medical Convention met in Philadelphia in May 1847 there were accredited representatives from Ohio as follows:

Medico-Chirurgical Society of Cincinnati	Dr. David Judkins
Ohio Medical Convention	Dr. Samuel St. Johns Dr. John Butterfield Dr. M. B. Wright
Willoughby Medical College	Dr. John Butterfield

However, only Drs. Judkins and Butterfield were in attendance.

Dr. Butterfield was appointed a member of the Committee on Nominations by the Convention Chairman, Jonathan Knight, M.D. On May 7, 1847, the Convention resolved itself into the American Medical Association and Dr. Judkins was appointed a member of the Committee on Nominations. On May 8, 1847, the President and Vice-Presidents appointed standing committees and Dr. Daniel Drake then of Louisville, Kentucky, was appointed a member of the Committee on Medical Literature of which Dr. Oliver Wendell Holmes, Boston, was chairman. Dr. John M. Bigelow of Lancaster, Ohio, was appointed a member of the Committee on Indigenous Botany of which Dr. N. S. Davis, Binghampton, N. Y., was chairman.

Meetings Held In Ohio

An examination of the records of the American Medical Association reveals that during the past ninety-two years there have been six sessions of the Association held in Ohio as follows:

1850	Cincinnati, Ohio
1867	Cincinnati, Ohio
1883	Cleveland, Ohio
1888	Cincinnati, Ohio
1899	Columbus, Ohio
1934	Cleveland, Ohio

Presidents From Ohio

There have been five physicians in Ohio who

1. Proceedings of the National Medical Conventions held in New York, May, 1846, and in Philadelphia, May, 1847. Philadelphia 1847.

Meetings in New York City were held May 5-6, 1846.

Meetings in Philadelphia were held May 5-7, 1847. On May 7 the National Medical Convention resolved itself into the American Medical Association.

2. The first meeting of the Ohio State Medical Society was held in the Neil House, Columbus, Ohio, May 14, 1846. It was an out-growth of the Ohio Medical Convention organized in 1835. The Convention and Society held concurrent meetings from 1846 to 1851 when the Convention merged finally with the Society. On May 21, 1845 a resolution was adopted by the Convention that "Drs. Hills, R. Thompson, Davis, Butterfield, and Baker, be a committee to draft a constitution and by-laws for the organization of a State Medical Society, and that they be requested to report at the earliest practicable moment during this session".

The author would appreciate any corrections or additions to the material presented herewith.

have risen from the ranks of the profession to receive the distinguished honor of presiding over the American Medical Association. They were:

1850	Reuben Dimond Mussey, M.D.	Cincinnati
1870	George Mendenhall	Cincinnati
1889	William Wirt Dawson	Cincinnati
1901	Charles Alfred Lee Reed	Cincinnati
1937	John Howell Janeway Upham	Columbus

The first one to be so honored was Reuben Dimond Mussey, M.D. (1780-1866)[3] of Cincinnati, Ohio, who presided at the fourth meeting held in Cincinnati in 1850. He received his M.B. from Dartmouth College in 1805; his M.D. from the University of Pennsylvania in 1809 and in 1812 an M.S. from Dartmouth College. Dr. Mussey served as professor of surgery in the Medical College of Ohio from 1838-52 and in the same capacity in the Miami Medical College 1852-60.

Twenty years later George Mendenhall, M.D. (1814-1874)[4] of Cincinnati was elected president and presided at the twenty-fourth meeting held in Washington, D. C. in 1870. He received his M.D. from the University of Pennsylvania in 1835. He held the chair of professor of obstetrics and diseases of women and children, Miami Medical College 1852-57 and the same chair in the Medical College of Ohio 1857-1860. In 1865 he was appointed dean and professor of obstetrics in the Miami Medical College, a position he held until 1873.

Nineteen years later William Wirt Dawson, M.D. (1828-1893)[5] of Cincinnati was elected president. He presided at the forty-third meeting held in Newport, Rhode Island in 1889. Dr. Dawson was the first Ohio medical graduate to be elevated to the presidency. He received his M.D. degree from the Medical College of Ohio in 1850. From 1853 to 1856 he was professor of anatomy, Cincinnati College of Medicine and Surgery; from 1860 to 1864 he held the same chair in the Medical College of Ohio, and from 1871 to 1887 held the chair of professor of surgery in the Medical College of Ohio.

In 1901, twelve years later, Charles Alfred Lee Reed, M.D. (1856-1928)[6] of Cincinnati was elected president and presided at the fifty-fifth meeting held in St. Paul, Minnesota. He received his M.D. degree from the Cincinnati College of Medicine and Surgery in 1874. He served as professor of gynecology and abdominal surgery in the Cincinnati College of Medicine and Surgery 1882-96 and professor of clinical gynecology in the Medical College of Ohio 1902-09 and in the College of Medicine, University of Cincinnati 1909-17. He served as Secretary General of the First Pan-American Medical Congress, Washington, D. C. 1893 and President of the 7th Pan-American Medical Congress in 1915. He was a member of the special United States Commission to Panama in 1905. In 1908 he was made a Chevalier of the Legion of Honor, France.

Quite a hiatus occurs in the record before another Ohio physician was elected to the presidency. To be exact thirty-six years passed before John Howell Janeway Upham, M.D. (1871-)[7] of Columbus was elevated to the position.

Dr. Upham presided at the ninetieth meeting held in Atlantic City, New Jersey. He received his medical degree from the University of Pennsylvania in 1894. He began practice in Columbus, Ohio in 1896 and his teaching career in 1897 as instructor in medicine, Starling Medical College which position he held until 1902. He served as professor of medicine in Starling-Ohio Medical College 1908-14 and was transferred to the same chair in the College of Medicine, Ohio State University. He was secretary of the Ohio State Medical Association and editor of its Journal 1907-13; and was president in 1914-1915. His career with the American Medical Association began in 1922 as member of the Judicial Council; member of the Board of Trustees in 1923; chairman of the Board of Trustees 1933; and president-elect in 1936. In 1927 he was appointed dean of the College of Medicine, Ohio State University which position he still holds.

Vice-Presidents From Ohio

Other physicians from Ohio have been elected to high office in the American Medical Association from time to time. The vice-presidents have been:

First Vice-Presidents

1849	John Pollard Harrison	(1796-1849) Cincinnati
1864-5	William Heberden Mussey	(1818-1882) Cincinnati
1869	George Mendenhall	(1814-1874) Cincinnati
1894	Starling Loving	(1827-1911) Columbus

Second Vice-Presidents

1855	Daniel Tilden	(1788-1870) Sandusky
1866	Stephen Olney Almy	(-1877) Cincinnati

3. Juettner, Otto: Daniel Drake and His Followers.—Cincinnati 1909, p. 168.
Kelly and Burrage: American Medical Biographies.—Baltimore 1920, pp. 842-3.
Stone, R. French: Biography of Eminent Physicians and Surgeons—Indianapolis, 1894, p. 350.

4. Juettner, Otto: Daniel Drake and His Followers. pp. 327-9.
Kelly and Burrage: American Medical Biographies. p. 780.

5. Juettner, Otto: Daniel Drake and His Followers. pp. 256-7.
Kelly and Burrage: American Medical Biographies. pp. 297.
Atkinson, Wm. B.: Physicians and Surgeons of the United States, Philadelphia 1878, p. 705.

6. Who's Who in American Medicine 1925, p. 1223.
J. A. M. A. Vol. 91, No. 10, p. 742, September 8, 1928.

7. Who's Who in America, 1936-7, Vol. 19, p. 2465.
Ohio State University Century of Progress, 1834-1934, p. 431.
Who's Who in American Medicine, 1925, p. 1528.

1915 George Baletine Evans (1855-1930) Dayton

Third Vice-Presidents

1902 Christian Rasmus Holmes (1857-1920) Cincinnati

1907 George Washington Crile (1864-) Cleveland

Fourth Vice-Presidents

1848 William Maclay Awl (1799-1876) Columbus

1853 Richard H. L. Howard (1809-1854) Columbus

1878 Alexander Dunlap (1815-1894) Springfield

Trustees from Ohio

Several physicians have served as members of the Board of Trustees

1889-93 William Wirt Dawson (1823-1893) Cincinnati

1894 John Eliot Woodbridge (1846-1901) Youngstown

1896-1902 Charles Alfred Lee Reed (1856-1928) Cincinnati

1923-35 John Howell Janeway Upham (1871-) Columbus

Assistant Secretary

1867 William Wirt Dawson (1823-1893) Cincinnati

Council on Scientific Assembly

This council was established and its first members were appointed in 1915. Two physicians from Ohio have served on this council.

1915-33 Roger Sylvester Morris (1877-) Cincinnati

1937-42 Clyde Lottridge Cummer (1882-) Cleveland

Judicial Council

It seems that the Judicial Council was first established as a permanent body with definite terms of service for its members at the Los Angeles session in 1911. Two physicians from Ohio have served on this Council.

1922-23 John Howell Janeway Upham (1871-) Columbus

Dr. Upham was elected a Trustee in 1923 so did not complete his term.

1925-40 George Edward Follansbee (1871-) Cleveland

Dr. Follansbee was appointed to the Judicial Council for his third term of five years in 1935. He has been chairman of the Council since 1928.

Council on Pharmacy and Chemistry

1930-43 Harold Newton Cole (1884-) Cleveland

1935-41 Torald Hermann Sollman (1874-) Cleveland

A record such as the foregoing brings to light several facts worthy of note. One was the national influence of the early physicians in Cincinnati who served on the faculties of the Medical College of Ohio. Another was the persistence of the influence of the Medical Department of the University of Pennsylvania in the development of leaders in the medical profession throughout the country.

Anatomy Riots

Mob action connected with unauthorized disinterment was not confined to New England. In the autumn of 1839 a crowd from a neighboring town attacked the medical school at Worthington, Ohio. They found two bodies. Thereupon the leaders of the mob directed the faculty to load all the movable possessions of the school into wagons, whereupon an armed group accompanied the wagons and the faculty to the county line and warned them never to return. They never did. Thus ended the medical school at Worthington.

In February, 1852, in Cleveland, Ohio, a mob attacked the rooms on the upper floors of a business block occupied by the recently organized Western College of Homeopathic Medicine. No bodies were found, but the mob destroyed all the equipment of the school, damaged the building and attempted to burn it. The wreckage was so complete that the school never reoccupied the premises. Meanwhile at the Medical Department of Western Reserve College, a half-mile distant, in anticipation of a similar attack, eighty muskets and ammunition were secured from a neighboring armory. The white-haired dean, musket in hand, stood on the front steps of the medical building, with his armed students behind him awaiting the mob, which did not come when its scouts advised it of the preparations for its reception. Instead it started for the residence of the dean of the Western College of Homeopathic Medicine, intent on destroying his private property, and was stopped only when met by a company of militia that had been hastily called out.

Search of a medical school by a sheriff was a frequent event. These searches were usually without result, since every medical school had a place of concealment for the few cadavers which it might have on hand—few because cadavers were difficult to obtain, and because, when obtained, dissection was rapidly completed by a small group of students and the skeleton was removed.

The arrest of medical students, often including the demonstrator of anatomy, for suspected participation in resurrections was a common occurrence, but the records of conviction are few, and the penalty rarely exceeded a small fine.—Frederick C. Waite, Ph.D., Cleveland, Ohio; New Eng. Jour. of Med., Vol. 220, No. 6, February 9, 1939.

HIGH SPOTS OF THE NINETY-THIRD ANNUAL MEETING, OHIO STATE MEDICAL ASSOCIATION, WEDNESDAY AND THURSDAY, MAY 3-4, COMMODORE PERRY HOTEL, TOLEDO

TUESDAY, MAY 2

GOLF—Nineteenth Annual Tournament, Ohio State Medical Golfers' Association, Sylvania Country Club.

WEDNESDAY, MAY 3

HOUSE OF DELEGATES—Opening session, 9:30 A.M., El Dorado Room, Lobby Floor, Commodore Perry Hotel, Business session and Annual Address of the President, Dr. Barney J. Hein, Toledo.

FIRST GENERAL SESSION—Main Ballroom, Mezzanine Floor, Commodore Perry Hotel, 10:00 A.M. Speakers: Dr. Henry J. Gerstenberger, Cleveland; Dr. Anthony J. Lanza, New York; Dr. Harry Goldblatt, Cleveland; and Dr. Herman O. Mosenthal, New York.

PUBLIC HEALTH ROUND-TABLE LUNCHEON—12:30 P.M. Silver Ballroom Terrace, Mezzanine Floor, Hotel Secor (opposite Headquarters Hotel), under auspices of Section on Public Health and Preventive Medicine. Speakers: Dr. R. H. Markwith, State Director of Health, and Dr. Carl A. Wilzbach, Health Commissioner, City of Cincinnati.

ROUND-TABLE CONFERENCES—1:30 P.M. Twelve round-table conferences in Commodore Perry Hotel. Admission by reservation card obtainable at Registration Headquarters.

SESSIONS OF THREE SCIENTIFIC SECTIONS—3:00 P.M. Section on Surgery, Main Ballroom, Mezzanine Floor, Commodore Perry Hotel; Section on Pediatrics, Private Dining Rooms 2, 3 and 4, Mezzanine Floor, Commodore Perry Hotel; Section on Obstetrics and Gynecology, Silver Ballroom, Mezzanine Floor, Hotel Secor.

SECOND GENERAL SESSION—8:00 P.M. Main Ballroom, Mezzanine Floor, Commodore Perry Hotel. Speakers: Dr. Elliott C. Cutler and Dr. Bradley M. Patten, Ann Arbor, Mich.

THURSDAY, MAY 4

SESSIONS OF THREE SCIENTIFIC SECTIONS—9:30 A.M. Section on Medicine, Main Ballroom, Mezzanine Floor, Commodore Perry Hotel; Section on Eye, Ear, Nose and Throat, Silver Ballroom, Mezzanine Floor, Hotel Secor; Section on Nervous and Mental Diseases, Private Dining Rooms, 2, 3 and 4, Mezzanine Floor, Commodore Perry Hotel.

HOUSE OF DELEGATES—12:00 Noon. Luncheon and final session, El Dorado Room, Lobby Floor, Commodore Perry Hotel.

THIRD GENERAL SESSION—1:30 P.M. Main Ballroom, Mezzanine Floor, Commodore Perry Hotel. Speakers: Dr. Bernhard Steinberg, Toledo; Dr. Allen F. Voshell, Baltimore, Md.; Dr. Johnson McGuire, Cincinnati; Dr. Elmer L. Sevringhaus, Madison, Wis.; Dr. George M. Curtis, Columbus; and Dr. W. W. Herrick, New York.

ANNUAL BANQUET—7:30 P.M. Main Ballroom, Mezzanine Floor, Commodore Perry Hotel. Guest speaker, Hon. John W. Bricker, Governor of Ohio.

* * * *

Registration Headquarters, located in the Crystal Room, just off the main floor of the Commodore Perry Hotel, will be open from 8:00 A.M. to 5:30 P.M. daily.

Technical Exhibit, also in the Crystal Room, will be open from 8:00 A.M. to 7:00 P.M. daily.

Exhibits in the Hobby Show will be displayed in a suite of rooms on the Arcade Floor of the Commodore Perry Hotel.

Special entertainment for women guests is being arranged by a committee of wives of Toledo physicians. Women guests should register upon arrival at the registration desk provided for that purpose adjacent to Registration Headquarters.

A number of luncheons have been arranged by physicians interested in various specialties, including allergy, nervous and mental diseases, pathology, and eye, ear, nose and throat. Time and place of these luncheons will appear in the official program, and were published in Program Section of the April issue of The Ohio State Medical Journal, pages 421-452.

DON'T FORGET YOUR 1939 MEMBERSHIP CARD. YOU'LL NEED IT TO REGISTER.

Coming Meetings

Ohio State Medical Association, Toledo, May 3-4.

American Medical Association, St. Louis, May 15-19.

American Academy of Tuberculosis Physicians, St. Louis, May 13-14.

American Association of Genito-Urinary Surgeons, Williamsburg, Va., May 24-26.

American Association of Industrial Physicians and Surgeons, Cleveland, June 5-8.

American Association for Traumatic Surgery, Hot Springs, Va., May 8-9.

American Association on Mental Deficiency, Chicago, May 3-6.

American Association for the Study of Goiter, Cincinnati, May 22-24.

American Bronchosopic Society, Rye, N. Y., May 26.

American Congress of Obstetrics and Gynecology, Cleveland, Sept. 11-15.

American Dermatological Association, Montobello, Canada, May 31-June 3.

American Gynecological Society, White Sulphur Springs, W. Va., May 22-24.

American Heart Association, St. Louis, May 12-13.

American Laryngological Association, Rye, N. Y., May 24-26.

American Laryngological, Rhinological and Otological Society, Chicago, May 10-11.

American Medico-Legal Association, Chicago, May 12-13.

American Neurological Association, Atlantic City, June 5-7.

American Ophthalmological Society, Hot Springs, Va., June 5-7.

American Orthopedic Association, Buffalo, N. Y., June 5-8.

American Otological Society, New York, May 22-23.

American Psychiatric Association, Chicago, May 8-12.

American Rheumatism Association, St. Louis, May 15.

American Radium Society, St. Louis, May 15-16.

American Society of Clinical Pathologists, St. Louis, May 12-14.

American Society for the Study of Allergy, St. Louis, May 15-16.

American Surgical Association, Hot Springs, Va., May 11-13.

American Therapeutic Society, St. Louis, May 12-13.

American Urological Association, White Sulphur Springs, W. Va., May 29-June 1.

Associated Anesthetists of the United States and Canada, St. Louis, May 15.

Association for the Study of Internal Secretions, St. Louis, May 13-14.

Association of Military Surgeons of the United States, Washington, D. C., May 8-10.

International College of Surgeons, New York, May 22-24.

National Gastroenterological Association, New York, June 1-2.

Anesthetists Will Hold Joint Meeting In Toledo, Thursday, May 4

A joint meeting of the American Society of Anesthetists and the Ohio Society of Anesthetists will be held in the ballroom of the Hotel Waldorf, Toledo, Thursday, May 4. The following program has been arranged:

8:00 A.M. Anesthesia clinics, by Toledo Society of Anesthetists.

2:00 P.M. Organization meeting of Ohio Society of Anesthetists; adoption of constitution, election and installation of officers and transaction of miscellaneous business.

2:45 P.M. "The Anesthetic Fire and Explosion Hazard", Dr. Maurice P. Cooper, anesthetist, Flower, Lucas County and Toledo State Hospitals, Toledo.

3:30 P.M. "Cerebral Anoxia and Anesthesia", Dr. Frederic Schrieber, professor of clinical neurological surgery, Wayne University College of Medicine, Detroit, Mich. Discussion by Dr. Frank Murphy, anesthetist, Harper Hospital, Detroit, Mich.

4:15 P.M. "Intravenous Anesthesia", Dr. John S. Lundy, Section on Anesthesia, Mayo Clinic, Rochester, Minn.

6:30 P.M. Dinner, Hotel Waldorf.

8:00 P.M. Business meeting of American Society of Anesthetists.

8:30 P.M. "Combined Inhalation and Spinal Anesthesia", by Dr. B. B. Sankey, anesthetist, Huron Road Hospital, East Cleveland.

9:15 P.M. "A Free Air-way Below the Larynx", Dr. Hubert R. Hathaway and Dr. M. Digby Leigh, Department of Anesthesia, University of Wisconsin Medical School, Madison, Wisconsin.

Details of the meeting are in charge of Dr. K. C. McCarthy, 2228 Ashland Ave., Toledo, secretary-treasurer of the Ohio Society of Anesthetists.

Many Ohio Physicians To Take Part in Or Are Planning To Attend Annual Session of A.M.A., St. Louis, May 15-19

MANY Ohio physicians are planning to be in St. Louis, May 15-19 for the Ninetieth Annual Session of the American Medical Association.

The House of Delegates will convene at 10 A.M., Monday, May 15, in the Ballroom of the Hotel Statler. General scientific meetings are scheduled for Monday afternoon and Tuesday morning and afternoon. These include panel discussions on pneumonia and biliary tract disease, a special program by St. Louis physicians and sessions of the medical and surgical divisions.

The Scientific Assembly of the Association will be officially opened with a general meeting at 8 P. M., Tuesday, May 16, in the Opera House of the Municipal Auditorium. Dr. Rock Sleyster, Wauwatosa, Wisconsin, President-Elect of the A.M.A., will be installed as President at this meeting and deliver his presidential address. Other speakers include Governor Lloyd C. Stark of Missouri.

SECTION MEETINGS

Section meetings will be held Wednesday, Thursday and Friday, May 17, 18 and 19.

The following sections will convene at 9 A. M. each day: Practice of Medicine; Obstetrics and Gynecology; Laryngology, Otology and Rhinology; Pathology and Physiology; Preventive and Industrial Medicine and Public Health; Urology; Orthopedic Surgery. The Section on Miscellaneous Topics will have a session of anesthesia Wednesday morning.

Sections convening at 2 P. M. each day are: Surgery, General and Abdominal; Ophthalmology; Pediatrics; Pharmacology and Therapeutics; Nervous and Mental Diseases; Dermatology and Syphilology; Gastro-Enterology and Proctology; Radiology.

Registration Bureau, General Headquarters, Scientific and Technical Exhibits, Information Bureau and Branch Postoffice, will be located in the Municipal Auditorium. Scientific meetings will be held in the assembly rooms of the Auditorium and in ballrooms in the Hotel Jefferson and Hotel DeSoto.

OHIO TO BE REPRESENTED

The official program of the St. Louis session, information concerning hotel accommodations, a description of the city and its facilities for entertainment and amusement, appear in the April 15, issue of *The Journal of the American Medical Association*, pages 1463-1512.

The Ohio State Medical Association will be represented in the House of Delegates by Dr. Charles W. Stone, Cleveland; Dr. Ben R. McClellan, Xenia; Dr. Carl R. Steinke, Akron; Dr. E. R. Brush, Zanesville, and three additional delegates to be elected at the Annual Meeting of the State Association in Toledo, May 3-4. The incumbents are: Dr. G. F. Zinninger, Canton; Dr. C. E. Kiely, Cincinnati, and Dr. C. W. Waggoner, Toledo.

Dr. Clyde L. Cummer, member of the Committee on Scientific Assembly of the A.M.A., will represent the Section of Dermatology and Syphilology in the House of Delegates.

Other Ohio physicians who will participate in the business activities of the session as members of important standing committees or official agencies are: Dr. Geo. Edw. Follansbee, Cleveland, Chairman of the Judicial Council; Dr. Torald Sollman, Cleveland, chairman, and Dr. Harold N. Cole, Cleveland, member of the Council on Pharmacy and Chemistry; Dr. Howard T. Karsner, Cleveland, member of the Council on Physical Therapy; and Dr. Tom D. Spies, Cincinnati, member of the Council on Foods.

The following Ohio officers are officers of scientific sections: Dr. Robert S. Dinsmore, Cleveland, member of the executive committee, Section on Surgery, General and Abdominal; Dr. Derrick Vail, Cincinnati, secretary, Section on Ophthalmology; Dr. Russell L. Haden, Cleveland, member of executive committee, Section on Pharmacology and Therapeutics; Dr. John T. Murphy, Toledo, secretary, Section on Radiology.

OHIOANS ON PROGRAM

Ohio physicians scheduled to address scientific sessions at St. Louis are: Dr. Louis J. Karnosh, Dr. Curtis F. Garvin, Dr. George Crile, Jr., Dr. George W. Binkley, Dr. William E. Lower, Dr. E. P. McCullagh, Dr. Chas. C. Higgins, Dr. B. H. Nichols and Wm. A. Nosik, Cleveland; Dr. Tom D. Spies, Dr. M. A. Blankenhorn, Dr. Charles D. Aring, Dr. J. P. Evans, Dr. Elmore B. Tauber, Dr. Leon Goldman, Dr. Julien E. Benjamin, Dr. Samuel Goldblatt, Dr. Joseph A. Freiberg, Cincinnati; Dr. Charles A. Doan, Dr. Bruce K. Wiseman, Dr. Sloan J. Wilson, Dr. Emmerich von Haam, Columbus; Dr. Bernhard Steinberg, Toledo; Dr. P. A. Davis, Akron. Discussants include: Dr. Albert D. Ruedemann, Dr. Theodore T. Zuck, Dr. Roy W. Scott, Dr. James R. Driver, Dr. W. S. Duncan and Dr. McCullagh, Cleveland; Dr. Albert L. Brown and Dr. Benjamin, Cincinnati; Dr. Judson D. Wilson, Columbus.

Among those participating in the Scientific Exhibit are the following from Ohio: Dr. Robert

M. Stecher, Cleveland; Dr. Bernhard Steinberg, Toledo; Dr. Samuel H. Sedwitz, Youngstown; Dr. B. S. Kline, Dr. A. M. Young and Dr. R. Straus, Cleveland; Dr. Elmore B. Tauber, Dr. H. G. Reineke and Dr. Joseph B. Homan, Cincinnati.

Dr. Paul A. Davis, Akron, is the representative to the Scientific Exhibit from the Section on Preventive and Industrial Medicine and Public Health. Dr. Derrick Vail, Cincinnati, is a member of the committee representing the Section on Ophthalmology.

Dr. A. L. Schwartz, Cincinnati, is a member of an advisory committee which will present a special exhibit on the administration of anesthesia, in which Dr. R. F. Corwin, Dayton, and Dr. R. J. Whitacre, Cleveland, will be demonstrators. Dr. Maxwell Harbin, Cleveland, will participate in the demonstration which will be given continuously throughout the session as part of the special exhibit on fractures. Other interesting features of the scientific exhibit are an exhibit symposium on heart disease and one on graduate medical education. Several of the sections will present motion picture programs in areas adjoining the exhibits.

GOLF TOURNAMENT, MAY 15

The American Medical Golfing Association will hold its Twenty-Fifth Annual Tournament at the Norwood Hills Country Club, Monday, May 15. The club, one of the most elaborate in the country, has two beautiful courses. All male Fellows of the A.M.A. are cordially invited to become members of the American Medical Golfing Association. Application blanks can be obtained by writing Bill Burns, executive secretary, 2020 Olds Tower. Lansing, Mich. Living past-presidents of the A.M.G.A. include Dr. Thomas Hubbard, Ashtabula, and Dr. Charles Lukens, Toledo.

Entertainment for all women attending the St. Louis session has been arranged by a special committee on Women's Activities. Registration headquarters for women guests will be at the Hotel Chase.

Requests for hotel reservations for the St. Louis meeting should be addressed to Dr. Neil S. Moore, chairman, Subcommittee on Hotels, 910 Syndicate Trust Bldg., St. Louis, Mo.

Only Fellows of the American Medical Association are permitted to register for the Scientific Assembly. Members of the Ohio State Medical Association who are not Fellows of the A.M.A., and who wish to attend the St. Louis session, will be permitted to register upon presentation of their 1939 membership card in the State Association and signing of an application for Fellowship in the American Medical Association.

States To Be Pawns in Strategy of Proponents of Wagner Health Bill

An insight into the strategy which proponents of the Wagner National Health Bill have concocted is revealed by Glen Leet, Washington writer and Congressional reporter in his column "Here in Washington", published in the April, 1939, issue of *Survey Midmonthly*, page 111.

Under the heading "To Cut the Gordian Knot", Mr. Leet said:

"Should Senator Wagner's bill for a national health program be enacted, **supplementary legislation would be necessary in practically every state desiring to take full advantage of the benefits offered.** Four-four state legislatures are meeting this year, but most of them will have adjourned before Congress takes final action on the Wagner bill. Thus state action would be long delayed since governors seem increasingly reluctant to call special sessions to consider matters of this kind. A committee of six, meeting recently in Washington, has worked out a plan which may overcome this difficulty in some states. This plan involves the enactment of anticipatory state enabling legislation, and **the committee is now working furiously on illustrative bills.** Precedent for this is found in the action of a number of states which enacted anticipatory unemployment compensation, old age assistance, aid to the blind, and aid to dependent children laws, early in 1935, although the federal Social Security Act was not passed until August of that year. With the encouragement of their national officers, a number of state labor and other interested groups will offer their cooperation to state officials in the formulation of such legislation. **While federal agencies cannot openly advocate this program they will do nothing to discourage it.** These state enabling bills will be expressed in broad, general terms. **They will authorize the state administration to cooperate with the National Health Program.** They will authorize the governor, or some specific state agency, to receive and expend funds made available to the state under the National Health Program, and will authorize the meeting of such conditions as are necessary to receive such funds. Generally, they will provide for a specific appropriation to match federal funds."

The above shows the subtle methods which will be used in an effort to coerce the states to lend consciously or unconsciously their support to the Wagner Bill, which itself is one of the most subtle legislative proposals ever introduced in the Congress.

New Hospital Officials

Dr. Fred G. Carter, superintendent of Christ Hospital, Cincinnati, and president-elect of the American Hosp'tal Association, has been appointed superintendent of St. Luke's Hospital, Cleveland, succeeding Dr. Charles S. Woods who resigned after 16 years of service. Dr. Merrill F. Steele, superintendent of Grant Hospital for the past six years, and president of the Ohio Hospital Association in 1935, will succeed Dr. Carter.

Right of Employee to Sue Negligent Employer in Cases of Non-Compensable Occupational Diseases Upheld by Court

THREE decisions vitally affecting the Ohio Workmen's Compensation system were announced by the Ohio Supreme Court on March 29. In the cases of Triff versus The National Bronze and Foundry Company, and Smith versus the Marion Brass and Bronze Foundry Company, the Court, overruling previous decisions, declared that an employee has the right to sue his employer for damages for an alleged occupational disease not covered by the Workmen's Compensation Act, and due to negligence on the part of the employer. In another important decision, the Court upheld the constitutionality of the act passed at the ninety-second session of the Ohio General Assembly establishing four district boards of claims whose decisions on workmen's compensation claims have the same effect as those of the State Industrial Commission. Both of these Supreme Court decisions are reversals of Court of Appeal's decisions. Motions and applications for rehearing of the cases have been filed by interested parties with the Court.

ANALYSIS OF CASES

In cause No. 26952, the plaintiff, Suzie Triff, administratrix of the estate of Laszlo Triff, deceased, brought an action for wrongful death against the defendant, the National Bronze and Aluminum Foundry Company, in the Court of Common Pleas of Cuyahoga County, asking $25,000 damages. It was alleged that prior to April 12, 1936, the decedent was an employee of defendant company working as a sandblaster and also at cleaning and grinding castings; that in the course of his work the atmosphere was filled with silica in amounts harmful to health; that this condition was known to the employer but not to the employee, and that by reason of this alleged hazard the decedent contracted an occupational disease known as silicosis, which entirely disabled him on April 12, 1936, and from which he died on April 19, 1937.

The petition set out various grounds of negligence such as the failure of the company to inform the workman of the dangerous conditions; failure to provide a safe place to work in violation of the laws of the state of Ohio; failure to provide safety devices; and failure to obey various rules of the State Industrial Commission.

The Court of Common Pleas of Cuyahoga County rendered a decision in favor of the defendant, and was upheld by the Court of Appeals of Cuyahoga County.

In cause No. 27050, the plaintiff, William Smith, sued Richard A. Lau, doing business as the Marion Brass and Foundry Company, for $40,000 damages, alleging that as an employee of that company he contracted silicosis by breathing dust particles while operating a sandblasting machine and a grinding machine. Charges of negligence on the part of the employer were similar to those made in the Triff case. The Common Pleas Court of Marion County entered judgment in favor of the employer, and the Court of Appeals affirmed the decision.

WHAT THE COURT SAID

Syllabus of the Supreme Court's decision in these two cases follows:

1. At common law an employee has a right of action against his employer for damages from an occupational disease directly caused by the latter's negligence.

2. The right of action of an employee for the negligence of his employer directly resulting in a non-compensable occupational disease has not been taken away by Section 35, Article II of the Constitution of Ohio, or by Section 1465-70, General Code.

3. Likewise an action for wrongful death may be maintained by the personal representative of a deceased employee who died from a non-compensable occupational disease proximately caused by the negligence of the employer.

4. If a petition states a case of action at law for damages and prays for a money judgment, equitable relief and a declaratory judgment, the prayer in so far as it relates to equitable relief and a declaratory judgment may be disregarded.

The Court's decision concluded with the following statement:

"The controlling principles of construction may be summarized thus: At the time workmen's compensation was first adopted in Ohio an action for occupational disease or for wrongful death therefrom could be maintained against the employer guilty of actionable negligence. There has never been a statutory or constitutional provision expressly denying the right to maintain an action growing out of a non-compensable occupational disease. The language to be construed is general in character; and the letter should not prevail over the spirit for the polestar of interpretation is the intent of the provisions.

"Since the underlying purpose of compensation is to make industry bear the burden of human wreckage by paying stated awards for injury and loss of life in the course of employment, the court should avoid a strained construction which would leave many employees, who are blameless victims of their employer's torts, without either damages or compensation and absolutely remediless. It is an obvious injustice to allow some employees who contract occupational disease compensation and others nothing—not even damages tortiously inflicted. The true ob-

jective of compensation could hardly be attained by giving the language a meaning that would work injustice when another course lies open consistent with the spirit manifested in all the constitutional and statutory provisions when considered together. By giving the words of the organic and statutory law their ordinary meaning and keeping in mind the purpose sought, the conclusion is inevitable that the right of action growing out of a non-compensable occupational disease still subsists."

OPENS FIELD OF LITIGATION

The majority opinion was written by Judge Williams and concurred in by Judges Day, Zimmerman and Hart. Chief Justice Weygandt and Judges Matthias and Myers dissented.

Possible effects of the decision are pointed out by Judge Matthias in the following excerpts from his dissenting opinion:

"Section 1465-70, General Code, the purpose of which clearly was to unconditionally abolish open liability of employers complying with the requirements of the Workmen's Compensation Act, has been in effect for the past twenty-six years. It was enacted pursuant to the very laudable purpose of abolishing vexatious, expensive and often futile litigation between employer and employee and to provide and enforce one system of compensation for the employee and complete immunity of the employer from suit, with the single exception of the employee's right to maintain suit at law where damages were claimed as a result of the violation of a specific, lawful requirement. Dissatisfaction arising from this partial open liability resulted in the preparation of the proposed constitutional amendment, by the joint and harmonious action of the representatives of the employers and employees. The immunity which had been granted by Section 1465-70, General Code, pursuant to the permissive provisions of the Constitution, was incorporated in the mandatory provisions of that amendment.

"Now it is asserted and held by the majority that there is still an open liability and that under this amendment the right is reserved to maintain suits at law upon claims for any kind of disability for which compensation has not been specifically provided under the Workmen's Compensation Law.

"The majority opinion states that Section 1465-70, General Code, should not be given a wider scope than it had when originally enacted, and that it did not then embrace occupational diseases in its terms. However, by the subsequent enactment of Section 1465-69b, General Code, the Legislature extended such exemption of employers from liability so as to include exemption from suit for damages for disability resulting from occupational disease. The effect of the decision in this case is to hold these statutory provisions unconstitutional.

"Numerous practical questions will arise as a result of the decision in this case. For instance, under the provisions of Section 1465-68a, General Code, as amended since these cases were instituted, silicosis has been included with compensable occupational diseases; but compensation is to be awarded only if the employee has been subjected to injurious exposure to silica dust for periods aggregating five years. Under this decision, an action at law without limitation in amount of recovery may be maintained by employees suffering from silicosis who had been exposed to silica dust less than five years, for their disability is not compensable under the Workmen's Compensation Law. This is only illustrative of the many similar potential situations created by the decision in this case.

"Paraphasing the language of an eminent jurist in a recent cause celebre, it may be well stated that if experience is any guide the present decision will give momentum to kindred litigation and reliance upon it far beyond the scope of the special facts of this case, for legal doctrines have, in an odd kind of way, the faculty of self-generating extension."

DECISION ON CLAIMS BOARDS

In cause No. 27238, DeTorio versus the State Industrial Commission, the Supreme Court reversed the decision of the Court of Appeals of Franklin County declaring unconstitutional Section 1465 (a) General Code which established four district board of claims to hear such claims as are referred to them by the State Industrial Commission, the decisions of such district boards to have the same effect as those of the Commission.

It was the contention of the plaintiff that the language used in Section 35, Article II of the Constitution permits the establishment of but one board to execute and administer the purpose of the Workmen's Compensation Fund and that such purpose was executed in the establishment of the State Industrial Commission.

Judge Myers wrote the majority opinion in this case, which was concurred in by Chief Justice Weygandt, Judges Day and Zimmerman. Judges Hart and Matthias dissented.

Syllabus of the opinion follows:

1. A statute which is in furtherance of the general purpose of a constitutional amendment, and otherwise valid under the general police power of the state, will not be held invalid unless in clear conflict with the express provisions of such constitutional amendment.

2. The boards of claims authorized by Section 1465-44a, General Code, were neither intended to supersede nor to be on a parity in all respects with the Industrial Commission, but were intended rather as an aid and auxiliary in investigating, hearing and deciding referred claims. Such statute is not in volation of Section 35, Article II of the Constitution.

Opening on Public Health Staff

The Akron Health Department has a full-time position for a male public health physician, open May 1. The position can be held available to July 1, in case of the selection of an interne who wishes to complete his internship. Applications should be made at once to Dr. M. D. Ailes, Director of health, Municipal Building, Akron. The position pays $2,775 per year. The appointee must use his own automobile, for which gasoline is provided.

Narcotic Licenses Must Be Renewed on or Before July 1; Warnings and Advice Offered by Federal Official

EVERY physician wishing to prescribe or dispense narcotic drugs must register with the collector of internal revenue of his district and pay the Federal tax of $1.00 on or before July 1 annually. Initial application may be made at any time but thereafter the permit must be renewed each year on or before July 1.

Application for re-registration must be made on Form 678, with the physician's signature either acknowledged by two witnesses, or sworn to by a notary public or an official of the Internal Revenue Department. The number of the physician's license to practice medicine in Ohio must be noted on the form. The registration number assigned by the Internal Revenue Department is retained from year to year.

The application must be accompanied by an inventory on Form 713, of the narcotic drugs on hand in the physician's office. This inventory, in affidavit form, must be sworn to by a notary public or an official of the Internal Revenue Department.

A copy of each of these forms will be mailed during the last week of May by the district collectors of internal revenue, to each Ohio physician already registered.

Physicians who administer, prescribe or dispense cannabis must obtain a special permit and re-register annually on or before July 1, with the district collector of internal revenue and pay a tax of $1.00.

For the information of physicians who are licensed to prescribe or dispense narcotic drugs, *The Journal* is reproducing the following timely article entitled "The Harrison Narcotic Act and the Practitioner", by H. J. Anslinger, United States Commissioner of Narcotics, Washington, D.C., published originally in the *American Journal of Medical Jurisprudence*, November, 1938, issue:

THE HARRISON NARCOTIC ACT AND THE PRACTITIONER

H. J. ANSLINGER, Washington, D.C.
Commissioner of Narcotics

THE drugs which come within the purview of the Harrison Narcotic Act are opium and coca leaves, and any compound, manufacture, salt, derivative, or preparation thereof. A practitioner lawfully entitled to distribute, dispense, give away, or administer any of these drugs to patients upon whom he, in the course of his professional practice, is in attendance, may register under the act with the collector of internal revenue of his district, and pay an occupational tax of $1 per annum. It will be seen that a practitioner who is not qualified under the laws of a state or territory to distribute, dispense, give away, or administer narcotic drugs, is not eligible for registration under the Harrison Narcotic Act. In the case of a medical practitioner, this means, generally speaking, that he must have a valid and unrevoked license, issued by the appropriate authority of his particular jurisdiction, to practice medicine.

Having duly registered and having paid the occupational tax, the practitioner is assigned a registry number, and receives a special tax stamp which must be kept posted conspicuously on the premises "where the business is operated," i.e., in the practitioner's office. In order to obtain a supply of taxable narcotic drugs or preparations for dispensing to patients in the course of medical treatment, the practitioner must now apply to the collector of internal revenue for a book of official order forms, the book containing ten originals and ten duplicate copies of the order form. The collector will furnish upon request a copy of the blank form upon which a book of order forms may be ordered and a remittance of 10 cents must accompany the application when forwarded to the collector, to cover the purchase price of the book of order forms. Before issuing the order forms the collector will cause to be shown thereon in a legible and permanent manner the name, address, registry number, and class number of the practitioner to whom they are supplied as well as the date of issuance and the collector's signature or his name and the initials of the issuing employee.

TO PURCHASE NARCOTICS

Order forms are issued in duplicate and shall be executed in duplicate. They are arranged to permit the execution of the original and duplicate simultaneously by the insertion of a carbon sheet. An order for taxable narcotic drugs is prepared by the practitioner upon an original and duplicate order form, the original being signed by the practitioner and forwarded to a person, firm, or corporation qualified to sell taxable narcotics, such

as a registered manufacturer or wholesale dealer. The duplicate copy of the form must be preserved by the practitioner for a period of two years and kept available for inspection by any federal or state officer authorized to make such inspection. I wish to emphasize at this point that the proper method of obtaining taxable narcotic drugs or preparations by a practitioner, for general use in his practice, is by the use of an official order form. It has been found that some physicians issue a so-called prescription for narcotics such as hypodermic tablets of morphine, marking the order "For office use". A retail druggist who fills such an order violates the law and besides incurring criminal liability, incurs civil liability to an occupational tax in a higher class than that of retail dealer, as well as a civil penalty.

The ordinary source of supply for the practitioner who wishes to obtain taxable narcotics for general use in his practice, is (1) a person, firm, or corporation registered under the Harrison Act as a manufacturer in Class 1 or (2) a person, firm, or corporation registered under said act as a wholesale dealer in Class 2. The average druggist who is registered as a retail dealer in Class 3 is qualified to fill lawfully issued prescriptions for narcotics, but may not under his Class 3 registration sell narcotics to a physician pursuant to an order form, except, under certain conditions, aqueous and oleaginous narcotic solutions. A druggist qualified by registration as a retail dealer may supply registered practitioners on order forms, in quantities not exceeding one ounce at any one time, with aqueous or oleaginous narcotic solutions, in which the narcotic content does not exceed a greater proportion than 20 per cent of the complete solution, to be used in legitimate office practice. A druggist qualified only by registration as a retail dealer may not supply a practitioner, pursuant to an order form, with a quantity of any other taxable narcotic drug such, for instance, as a tube of hypodermic tablets.

Some retail druggists, in order to accommodate members of the medical profession, register under the Harrison Act in Class 2 as a wholesale dealer in addition to their registry in Class 3 as a retail dealer. A retail druggist who has duly registered and paid the occupational tax as a wholesale dealer may, of course, supply a registered practitioner, pursuant to the latter's order form, with tax-stamped narcotic drugs such as a tube of hypodermic tablets, for use in professional practice.

DISPENSING NARCOTICS

A practitioner, in the bona fide medical treatment of a patient, may dispense or administer narcotic drugs directly to the patient or he may issue to the patient a prescription for narcotics which prescription is filled by the retail druggist. The method of prescribing narcotics for patients is perhaps more general.

As to the formal requirements, a prescription for narcotic drugs must be dated as of and signed on the date when issued and must bear the full name and address of the patient and the name, address, and registry number of the practitioner. The prescription should be written with ink or indelible pencil or typewritten and must bear the signature of the practitioner. No government form of prescription is issued, the practitioner being permitted to use his own form, but the duty of properly executing the prescription rests upon the practitioner.

The refilling of a prescription for taxable narcotic drugs is prohibited. As a general rule, the partial filling of narcotic prescriptions is not permissible. If, however, a dealer is unable to supply the full quantity called for in a prescription and an emergency exists, he may supply a portion of the drug called for by the prescription, provided he makes a suitable notation on the face of the prescription of the quantity furnished and the reason for not supplying the full quantity on the back of the prescription, and advises the issuing practitioner thereof. No further quantity shall be supplied except upon a new prescription.

The furnishing of narcotics pursuant to telephone advice of practitioners is prohibited, whether prescriptions covering such orders are subsequently received or not, except that in an emergency a druggist may deliver narcotics through his employee or responsible agent pursuant to a telephone order, provided the employee or agent is supplied with a properly prepared prescription before delivery is made, which prescription shall be turned over to the druggist and filed by him as required by law.

A prescription, in order to be effective in legalizing the possession of unstamped narcotic drugs and eliminating the necessity for use of order forms, must be issued for legitimate medical purposes. The responsibility for the proper prescribing and dispensing of narcotic drugs is upon the practitioner, but a corresponding liability rests with the druggist who fills the prescription. An order purporting to be a prescription issued to an addict or habitual user of narcotics, not in the course of professional treatment but for the purpose of providing the user with narcotics sufficient to keep him comfortable by maintaining his customary use, is not a prescription within the meaning and intent of the act; and the person filling such an order, as well as the person issuing it, may be charged with violation of the law. In the case of narcotics dispensed by the practitioner directly to the patient, the same standard applies, i.e., that the drugs shall be dispensed only in the course of professional practice.

ADDICTS

It is obviously impossible to lay down any general rule as to what is meant by the "course of

professional practice" when applied to all of the infirmities to which flesh is heir. However, in a case which involved the prescribing of narcotic drugs to addicts, the Circuit Court of Appeals for the Sixth Circuit propounded to the United States Supreme Court the following question:

"If a practicing and registered physician issues an order for morphine to an habitual user thereof, the order not being issued by him in the course of professional treatment in the attempted cure of the habit, but being issued for the purpose of providing the user with morphine sufficient to keep him comfortable by maintaining his customary use, is such order a physician's prescription under exception (b) of section 2 (of the Harrison Narcotic Law)?"

The United States Supreme Court held that

"To call such an order for the use of morphine a physician's prescription would be so plain a perversion of meaning that no discussion of the subject is required. That question should be answered in the negative."

Webb and Goldbaum v. United States (1919) 249 U. S. 96.

The Supreme Court emphasized this rule in a later case involving the prescribing of narcotics by a practitioner for an addict, by holding, in part, as follows:

"Manifestly the phrases 'to a patient' and 'in the course of his professional practice only' are intended to confine the immunity of a registered physician, in dispensing the narcotic drugs mentioned in the Act, strictly within the appropriate bounds of a physician's professional practice, and not to extend it to include a sale to a dealer or a distribution intended to cater to the appetite or satisfy the craving of one addicted to the use of the drug. A 'prescription' issued for either of the latter purposes protects neither the physician who issues it nor the dealer who knowingly accepts and fills it."

Jin Fuey Moy v. United States (1920) 254 U. S. 189.

It may be stated that the Supreme Court has laid down the general rule that the prescribing or dispensing of narcotic drugs to addicts merely for the purpose of gratification of drug addiction cannot be considered as prescribing or dispensing narcotic drugs in the course of professional practice only. Practitioners who so dispense or prescribe narcotics are therefore liable to prosecution under the law. A sale of narcotic drugs made for the purpose only of catering to drug addiction is not a sale made in good faith and in the course of professional practice. A. W. Boyd v. United States (1926) 271 U. S. 104.

Upon trial of a practitioner upon charges of illegal dispensing of narcotics it has been held that, the issue being whether the drug was dispensed in the legitimate course of defendant's practice as a physician, evidence of experts as to the proper method recognized by the medical profession for the treatment of narcotic addicts is admissable on that issue. Reeves v. United States (C.C.A. 5th) 263 Fed. 690; see also Melanson v. United States (C.C.A. 5th) 256 Fed. 783; Sevensma v. United States (C.C.A. 6th) 278 Fed. 401; Strader v. United States (C.C.A. 10th) 72 F. (2d) 589; Hawkins v. United States (C.C. A. 5th) 90 F. (2d) 551.

Those practitioners, fortunately comparatively few in number, who have commercialized their profession by catering to drug addicts in complete disregard of the tenets of professional practice, and who find themselves on trial charged with offenses against the narcotic laws, nearly always resort to a claim of entrapment as a defense. A representation is made on behalf of the defendant physician, and it is sought to be substantiated, that he had no intention of transgressing the law, but that he was enticed into selling or prescribing the drug for improper purposes by the investigating officer or by someone associated with that officer. It should be stated at this point that an investigating officer is not authorized to commence an active investigation of the alleged narcotic irregularities on the part of a practitioner without first securing express authority to do so from his district supervisor, and that authority is not granted unless the investigation is based on well-founded suspicion, strong circumstances or trustworthy and reliable information that such violation is being committed. The rule which the Federal courts apply in this regard may be found most completely stated in a charge to the jury which was quoted with approval by the United States Circuit Court of Appeals for the Eighth Circuit in W. V. Smith et al v. United States (1922) 284 Fed. 673. A pertinent excerpt from this approved charge to the jury follows:

"It is no enticement to ask a physician to write an illegal prescription, if you suspect that he might do it, and you want to find out if he does it, nor to ask a druggist to sell narcotics illicitly, because both of them know better, and if they are going to obey the law, why they won't do that in response to any form of petition or inducement, and it is perfectly within the rights of investigating officers to determine, by means that have been here disclosed, whether a party, or parties, are engaged in violation of the law, and if they are, to take steps accordingly, so that I wish to disabuse your minds of all this confusion that this, in itself, was such an unwarrantable offense on the part of the Federal officers that it relieves this offense charged, if you find any offense was committed, of its character as such offense."

See also Newman v. United States (C.C.A. 4th) 299 Fed. 128; Hodge v. United States (C.C.A. 6th) 13 F. (2d) 596; Swallum v. United States (C.C.A. 8th) 39 F. (2d) 390; Ratigan v. United States (C.C.A. 9th) 88 F. (2d) 919. It will be seen that the Bureau rule of enforcement practice to avoid illegal entrapment is well within the limits of the rule established by the courts.

The Narcotic Bureau has never sanctioned or approved the so-called reductive or ambulatory

treatment of addiction for the reason that where the addict controls the dosage he will not be benefited or cured. Medical authorities agree that the treatment of addiction, with a view to effecting a cure, which makes no provision for confinement while the drug is being withdrawn, is a failure, except in a relatively small number of cases where the addict is possessed of a much greater degree of will power than that of the ordinary addict. The following report of a special committee of physicians, which is understood to have been adopted by the American Medical Association, is quoted from *The Journal of the American Medical Association*, issue of June 14, 1924:

"Your committee desires to place on record its firm conviction that any method of treatment for narcotic drug addiction, whether private, institutional, official or governmental, which permits the addicted person to dose himself with the habit-forming narcotic drugs placed in his hands for self-administration, is an unsatisfactory treatment of addiction, begets deception, extends the abuse of habit-forming narcotic drugs, and causes an increase in crime. Therefore, your committee recommends that the American Medical Association urge both federal and state governments to exert their full powers and authority to put an end to all manner of such so-called ambulatory methods of treatment of narcotic drug addiction, whether practiced by the private physician or by the so-called 'narcotic clinic' or dispensary.

"In the opinion of your committee, the only proper and scientific method of treating narcotic drug addiction is under such conditions of control of both the addict and the drug, that any administration of a habit-forming narcotic drug must be by, or under the direct personal authority of the physician, with no chance of any distribution of the drug addiction to others, or opportunity for the same person to procure any of the drug from any source other than from the physician directly responsible for the addict's treatment."

The following statement is quoted as an excerpt from an "Introduction," by Dr. Morris Fishbein, to a series of articles by various authors on "Indispensable Uses of Narcotics," published in *The Journal of the American Medical Association*, March 14 to June 6, inclusive, 1931:

"Physicians may, by the exercise of more thought in practicing, do much to avoid censure in relation to narcotic addiction. They may substitute, whenever possible, non-habit-forming drugs in the place of morphine or other opium alkaloids. When narcotics are indispensable, however, as shown in this series of articles, no more should be administered than is necessary to achieve the desired end. Patients requiring daily administration should be seen often by the doctor and the amount of drugs ordered or supplied should not exceed that required by the patient until seen again. Independence of administration on the part of nurses should be strictly limited to prescription and any change in treatment should be in writing."

For these views in disapproval of the so-called ambulatory treatment for drug addiction, we can find some support, at least by strong implication, in the language of a decision of the United States Supreme Court in the case of United States v. Morris Behrman (1922) 258 U. S. 280. To quote, in part, from this decision:

"Undoubtedly doses may be varied to suit different cases, as determined by the judgment of a physician. But the quantities named in the indictment are charged to have been entrusted to a person known by the physician to be an addict, without restraint upon him in its administration or disposition by anything more than his own weakened and perverted will. Such so-called prescriptions could only result in the gratification of a diseased appetite for these pernicious drugs, or result in an unlawful parting with them to others, in violation of the act as heretofore interpreted in this court, within the principles laid down in the Webb and Jin Fuey Moy cases."

FEDERAL BUREAU POLICY

The Bureau of Narcotics, in carrying out its duty to enforce the Federal narcotic laws, endeavors to avoid any action that might possibly harass or even inconvenience the conscientious law-abiding practitioner. It attempts to inform the profession relative to the technical requirements of the law and the regulations in order to forestall irregularities that might otherwise be committed, unintentionally by the ethical practitioner, through lack of such information. It must and does attempt to bring to the bar of justice those comparatively few practitioners who disregard the law, and the ethics and high ideals of their profession by converting their offices into depots for the illicit distribution of narcotic drugs. That the physician in the last-mentioned class represents an important factor in the diversion of narcotic drugs will be appreciated from the fact that, in a few recent cases in which the offending physicians were convicted, the tabulation of prescriptions disclosed that one group of four physicians had, within a period of twenty-three months, written over 19,000 prescriptions for numerous drug addicts calling for a total of 66 pounds of morphine.

Dr. Spies Wins High Honor

Dr. Tom D. Spies, Cincinnati, received one of the highest honors in American medicine when he was presented with the John Phillips Memorial Medal by the American College of Physicians at its recent convocation in New Orleans. The award was made "for outstanding contributions to the science of nutrition and particularly for his studies on the nature and character of pellagra". Dr. Spies is at present in Birmingham, Ala., on a leave of absence from the University of Cincinnati, making a chemical investigation of nicotine acid and the reasons for its producing such effects as the antipellagra action. This research is being sponsored by the Rockefeller Foundation.

Interesting Data on Hospitals in the Nation and In Ohio Reviewed in Latest Report of A.M.A. Council

THE Eighteenth Annual Presentation of Hospital Data by the Council on Medical Education and Hospitals of the American Medical Association, published in full in the March 11, 1939, issue of *The Journal of the A.M.A.*, reveals that a number of records in hospital service were broken in 1938.

The number of registered hospitals increased over that of the previous year for the first time in eight years, 6,166 in 1938 and 6,128 in 1937. In addition, 136 new hospitals were opened and their registry is pending; 67 are under construction and 185 are being planned. Hospitals refused registration after investigation numbered 636, with a total bed capacity of 18,372.

Of the 6,166 registered hospitals, 1,728 are governmental, with a bed capacity of 815,136. Nonprofit organizations operate 2,757 hospitals, with 289,501 beds, and 1,681 hospitals with 56,743 beds are in the proprietary class—owned by individuals, partnerships or incorporated for profit.

The rate of growth in registered hospitals was equivalent to one hospital for 101 beds for each day in the year 1938, Sunday and holidays included.

NUMBER OF BEDS INCREASED

Hospital beds increased from 1,124,548 in 1937 to 1,161,380 in 1938. **Governmental hospitals were responsible for 71.6 per cent of this total increase of 36,832 beds in 1938** and 89.5 per cent of the increase in 1937. Non-governmental beds increased 3.1 per cent over the previous year, while governmental beds, federal, state and local, increased 3.3 per cent.

Hospitals admitted patients in 1938 at the rate of one every 3.3 seconds.

Births in hospitals increased from 932,912 in 1937 to 1,026,771 in 1938, an increase of 93,859. Bassinets increased 1,181 in 1938, the total being 56,747.

ONE IN 14 WAS A PATIENT

One person in 14 became a hospital bed patient during 1938, according to the population as estimated by the United States Bureau of Census, July 1, 1938. Patients admitted totaled 9,421,075 and the average daily census was 965,706.

Patients' days in all hospitals aggregated 352,482,690, a gain of 7,763,550 over the preceding year. **The rate of occupancy in general hospitals was 68.9 per cent.** Governmental hospitals were 90.4 per cent filled. The average length of stay of patients in general hospitals was 12.5 days.

Registered hospitals which have been approved for internships, residencies and fellowships now number 986, with a total capacity of 409,768 beds and 25,659 bassinets. They admitted 52.6 per cent of total admissions to all registered hospitals.

Hospitals having their own radiology departments number 4,972, with 4,216 of these under the direction of a radiologist. Clinical laboratories are operated by 4,673 hospitals, 3,601 under the direction of a physician.

OHIO FIGURES

Hospitals, sanatoriums and related institutions in Ohio registered by the Council on Education and Hospitals of the A.M.A. in 1938 numbered 252, two more than last year. **Registration was refused 30 Ohio hospitals, with a bed capacity of 655 beds.**

Hospital facilities of the state classified according to control are: Federal, 6; state, 22; county, 22; city, 21; church, 44; fraternal, 4; other non-profit corporations and associations, 92; individual and partnerships, 21; profit corporations, 20.

Ohio hospitals are classified as to types of service as follows: general, 153; nervous and mental, 29; tuberculosis, 21; maternity, 10; industrial, 2; eye, ear, nose and throat, 2; children's, 3; orthopedic, 2; isolation, 2; convalescent and rest, 5; hospital departments of institutions, 19; all other hospitals, 4.

Bed capacity of registered hospitals in Ohio during 1938 was 54,302, and 2,616 bassinets, compared with 53,851 and 2,542, respectively in 1937. Patients admitted increased from 440,600 in 1937 to 446,591 in 1938. Average daily census in 1938 was 46,883, as compared with 46,154 in 1937. The percentage of beds occupied in general hospitals decreased from 73.1 per cent in 1937 to 69.8 per cent in 1938.

Radiology departments are under the direction of physicians in 165 of the 192 hospitals having such departments in 1938. Clinical laboratories were reported by 186 Ohio hospitals, of which 150 are under the direction of physicians.

OHIO HOSPITALS ON APPROVED LIST

The following Ohio hospitals, numbering 43, are approved for internship: City, Peoples and St. Thomas Hospitals, Akron; Aultman and Mercy Hospitals, Canton; Bethesda, Christ, Cincinnati General, Deaconess, Good Samaritan, Jewish and St. Mary Hospitals, Cincinnati; City, Fairview Park, Lutheran, Mt. Sinai, St. Alexis, St. John's, St. Luke's, St. Vincent, Woman's and University Hospitals, Cleveland; Grant, Mt. Carmel, St. Francis, Starling Loving University and White Cross Hospitals, Columbus; Huron Road

Hospital, East Cleveland; Good Samaritan, Miami Valley and St. Elizabeth Hospitals, Dayton; Mercy Hospital, Hamilton; Memorial and St. Rita's Hospitals, Lima; City Hospital, Springfield; Flower, Lucas County, Mercy, St. Vincent's, Toledo, and Woman's and Children's Hospitals, Toledo; Youngstown and St. Elizabeth's Hospitals, Youngstown.

Hospitals in Ohio approved for residencies in specialties number 34. They are: Children's, City and St. Thomas Hospitals, Akron; Mercy Hospital, Canton; Christ, Children's, Cincinnati General, Deaconess, Good Samaritan, Hamilton County Tuberculosis, Jewish, Longview State Hospitals, Cincinnati; City, Cleveland Clinic Foundation, Glenville, Mt. Sinai, St. Alexis, St. Ann's Maternity, St. John's, St. Luke's, St. Vincent's Charity, and University Hospitals, Cleveland; Children's, Columbus State and Starling Loving University Hospitals, Columbus; Miami Valley Hospital, Dayton; Huron Road Hospital, East Cleveland; General Hospital, Mansfield; Toledo State and Lucas County General Hospitals, Toledo; Cleveland Tuberculosis Sanatorium, Warrensville; Harding Sanitarium, Worthington, and St. Elizabeth's and Youngstown Hospitals, Youngstown.

Ohio schools for clinical laboratory technicians approved by the Council are: Institute of Pathology, Western Reserve University, (University Hospitals), Cleveland; Mt. Sinai Hospital, Cleveland; Starling Loving University Hospital and White Cross Hospital, Columbus; Huron Road Hospital, East Cleveland; College of Mount St. Joseph-on-the-Ohio, Mount St. Joseph, and Youngstown Hospital, Youngstown.

Many Medical and Health Problems In Industry To Be Discussed at National Meetings in Cleveland, June 5-8

Cleveland will play host to the American Association of Industrial Physicians and Surgeons and the American Conference on Occupational Diseases and Industrial Hygiene, for four days, beginning Monday, June 5. The sessions of the convention, which will be held at Hotel Statler, are open to interested members of all fields of industrial medicine. There is no registration charge. The president of the Association is Dr. Clarence Selby, Detroit, formerly of Toledo, a former president of the Ohio State Medical Association.

The highlight of the convention, from a national point of view, will be the presentation of the "Knudsen Award" by W. S. Knudsen, president of the General Motors Corporation, to the physician who has made the most outstanding contribution to industrial medicine during the past year. The presentation will be the feature of the annual banquet on Wednesday evening, June 7.

The first day's program will consist of the following addresses: "Conservation of Health and Industry", Dr. Selby; "Health of Workers", Dr. R. R. Sayers, Chief, Division of Industrial Hygiene, U. S. Public Health Service; "The Public Health Aspects of Occupational Diseases and Industrial Hygiene", Henry F. Vaughn, Commissioner, Detroit Department of Health; "The Employers Appraisal of Occupational Hygiene", G. W. Cannon, vice-president, Campbell, Wyant and Cannon Foundry, Muskegon, Michigan; "Fatigue in Industry", Dr. D. B. Dill, Harvard University; "The Public Significance of Industrial Health Programs", Whiting Williams, analyst of public opinion, Cleveland.

Programs on Tuesday, June 6, will be devoted to technical discussions of control methods for occupational diseases and industrial hazards, industrial hygiene, etc., closing with a demonstration of lighting research facilities at the General Electric Lighting Institute, Nela Park, and buffet dinner.

Addresses which have been arranged for Wednesday, June 7, follow: "The Maintenance of Mental Health in Industry", F. J. Roothlisberger, Harvard University; "Fatigue and Employment", Dr. R. R. Jones, U. S. Public Health Service; "Tendon and Nerve Suture", Dr. Sumner L. Koch, Chicago; "The Problem of Medical Service for the Small Industrial Plant", Dr. M. N. Newquist, Chicago; "The Relationship of the Industrial Medical Department to Other Personnel Activities", Dr. H. W. Lawrence, Fisher Body Cleveland Division, General Motors Corporation; "Geriatrics in Relation to Employment", Dr. W. A. Sawyer, Medical Director Eastman Kodak Company, Rochester, N.Y.; presentation of the "Knudsen Award" by W. S. Knudsen, president, General Motors Corporation.

The program for Thursday, the closing day, follows: "Plastic Surgery in Relation to Industrial Injuries", Dr. Donald Glover, Cleveland; "Making the World Supraspinatus Conscious", Dr. E. A. Codman, Boston; "Treatment of Hernia", Dr. David H. M. Gillespie, New York City; "Operative Problems in Rehabilitation of the Injured", Dr. H. H. Kessler, Newark, N. J.; "Physiotherapy Problems in Rehabilitation of the Injured", Dr. John S. Coulter, Chicago; "The Relation of Trauma to Disease and its Compensability", Dr. Sidney McCurdy, Supervisor Medical Section, The Industrial Commission of Ohio, Columbus.

Open New Offices

Ohio physicians who have recently opened new offices include the following: Dr. R. H. Breneman, Greenwich; Dr. Bernard R. Lauer, Delaware; Dr. Wallace Chiles, Manchester; Dr. Otto L. Plaut, Massillon; Dr. C. A. Day, New Castle; Dr. M. Steinleib, Wadsworth; Dr. W. P. Johnson, Columbus; Dr. S. R. Gendelman, Manchester.

Hindsight and Foresight

SIDNEY McCURDY, M.D., Columbus
Medical Supervisor, State Industrial Commission

IT is well, at the completion of three years of service with the Industrial Commission, to summarize its relationship to the medical profession in the hope that future operations may be improved.

One of the important phases of Workmen's Compensation is dependent upon the cooperative efforts of the medical profession and the Industrial Commission. This calls for an understanding of the viewpoints of both groups.

On the one hand, physicians are individualists accustomed to a finality of medical opinion. The physician treats our claimants on the same basis as he does the private patient and according to the customary rules of private practice. The Commission on the other hand, is charged by law to see that adequate medical attention is furnished those insured with us and to pay their bills for medical treatment. Thus is placed a third party between the physician and his patient which makes the setting complete for a form of social insurance covering accidents that arise out of and in the course of employment and some 23 designated occupational diseases.

Physicians are, after all, human beings and, as such, have the same frailties as are inherent in persons of other groups.

Because the Commission has recognized the right of the injured employe to select his own physician it comes about that we have medical relations with any or all of the nearly 9,000 doctors permitted by the state to practice in Ohio. The license permits the licensee to practice any branch of medicine and surgery that he may elect and does not recognize preeminence in any given field.

It is because of this situation that the Commission has not as yet, outside of the fields of X-ray and Ophthalmology, classified, in its Fee Schedule, various prices for different specialists. In fact, there is no clear definition of the qualifications for a specialty within the medical organizations themselves and, even though boards, without legal standing, are being set up in an attempt to accomplish this, still one's own conscience determines whether he shall rate himself as a specialist or not.

Out of the present evolutionary movement of the societies, boards and associations of specialists there may emerge a classification that, at some later date, can be applied to Workmen's Compensation medical administration. Until then we must rely upon average fees applicable to all regardless of individual merit and capability. This may seem unjust to some but it would, in the present chaos of specialization, be unjust if any other course were pursued by a governmental institution.

It is axiomatic that any well organized undertaking is controlled by rules and regulations. It is a truism that human beings dislike any regulation, particularly when it, by its very nature, cannot single out the specific case but must be general in its application.

The Commission has formulated rules, based upon necessity, which assist in the orderly conduct of its relationships with the employe, the employer, the medical profession, the legal profession and all others having business with it.

A reiteration of those rules that pertain to the medical profession will be given again. They have been printed in the Fee Schedule since 1933 and reprinted many times since in *The Ohio State Medical Journal*. My correspondence would indicate that many physicians do not realize that they exist nor that it is our intention to enforce them. An existing rule should be enforced until it is proved to be unfair and wrong. Only then should it be discarded. It is our policy to pursue

THE Journal is pleased to publish the accompanying article written by Dr. Sidney McCurdy, medical supervisor, State Industrial Commission, as, in doing so it will be assisting in bringing about a better understanding between the medical profession and the State Industrial Commission and in calling to the attention of physicians some of the important rules and regulations adopted by the Commission with respect to medical procedure. The article should provoke reactions and ideas among physicians. If any reader has constructive suggestions which he believes would be useful to the Industrial Commisson, he is urged to write the State Headquarters Office, Columbus, which will transmit such suggestions to Dr. McCurdy and the Commission.

this course but no rule will be changed without consultation with a proper committee of the Ohio State Medical Association.

WHERE TO SEND LETTERS

One of the difficulties that has been prevalent and discouraging to you has been our delay in answering mail, if answered at all. I think that there has been improvement in this fault on our part and, since we have effected recently some changes, I think the prompt answering of correspondence is on the way to further betterment.

All letters requesting authorization for special treatments as outlined in our rules should be addressed to the Medical Department and not the Claims Department or just the Industrial Commission. Such correspondence should include requests for all operations, X-ray treatments, electrical treatments, physical therapy, nursing service and any form of unusual or expensive treatment of any character. Matters of a routine nature should be addressed to the Claims Department, such as the filing of claims and bills and questions concerning them and their status.

MUST HAVE COMPLETE DATA

It should be obvious that while we at the Commission do not treat, that we are charged by law to see that adequate medical attention is received. Therefore, we are interested in seeing that proper treatment is given our claimant by his self-selected physician.

The adjustment of fees commensurate with the injury and the intent of the Fee Schedule is supervised by the medical department. In addition to this we have a scientific interest in these cases and desire to accumulate research data relative to treatment. This should be of value to the profession at large.

All this cannot be accomplished without progress notes submitted by you to us on forms arranged for that purpose. To us the forms are invaluable and so our rules request a submission of these reports at 30-day intervals or when the case is ended, if of shorter duration. We can assume no responsibility for the disability or treatment of disorders unrelated to the injury and should be informed if such co-exist.

The Commission does not pay for the services of more than one physician treating the same case at the same time for the same injury. This rule does not apply to consultants, anaesthetists, assistants, when necessary, or the case where an ophthalmologist or dentist is required.

WRITTEN PERMISSION NECESSARY

The Commission does not allow a patient to change from one physician to another without written permission. A patient is required, if the succeeding physician is to be paid by the Commission, to obtain authority for the change setting forth his reasons. If granted, a copy of the permission is sent to the discharged physician and the patient's reason given. This procedure helps to keep the medical treatment under control and keeps us informed as to who is treating the case. When you take on a new case of this sort we expect a notification and a copy of your physical findings and diagnosis. This does not apply to the case referred to a specialist by an attending physician, when the nature of the case warrants it, nor to the transfer immediately following emergency first-aid service.

DRESSINGS AND PHYSICAL THERAPY

Fees for daily dressings are frowned upon unless some satisfactory reason for them is presented in a report. A dressing for aesthetic purposes has nothing to do with the healing of the wound, in fact, it may impede the rapidity of healing and may increase the danger of infection. Daily dressings in clean wounds are seldom, if ever, justifiable.

It is necessay, for control, that all treatments by electricity, in any form, X-ray treatments and physical therapy be authorized in advance and limited to a specified length of time or number of treatments. There has been more abuse in the use of physical therapy medication than in other kinds of treatment. Our Rule No. 7 must be observed if you expect to collect your fee.

It is my hope that in long drawn out cases physicians will submit on a C-19 form their fee bill every 60 days. There is no reason why your money should be tied up until the case is finished. All questions on the back of the blank should be meticulously filled out so that we may follow the progress of the case and justify your charges. Some description should be given of the sort of treatment more enlightening than the words "office call", "house call", "examination", etc.

AUTHORIZATION FOR OPERATIONS

Our Rule No. 9, page 6 of the Fee Schedule, should be carefully read and observed in its entirety. I will repeat what it says and promise that it will be enforced rigidly. Under it, authority, in writing, for an autopsy must be received and a full report submitted to the Commission before any payment will be made. Rule No. 9 applies to any surgery that is not of emergency character. In case of emergency, full explanation must accompany the operative report; if it is related to the injury, the fee will receive due and just consideration. The exact wording of the rule is:

> "Except in emergencies or where the condition of the patient might be endangered by delay, consent from the Commission must be obtained in advance where plastic or reconstructive surgery is contemplated or where open bone surgery in the later reduction of fractures is required. No bills for major surgery will be approved, even when authorized, until a copy of the hospital record of operation has been placed on file."

Requests for surgical operations are carefully

scrutinized by those on the medical staff competent to judge and estimate the value of those procedures. We have more data than does the profession concerning a case for we have at hand a full and complete history unbiased by the patient's version. We feel that in some cases we have the right to refuse operation after reviewing the entire file. Any data that you have upon which you made your diagnosis and recommendation should be furnished the Commission along with the request for treatment. We expect, for instance, to know about the result of your examination, such as the protein content of the spinal fluid, before we authorize the use of lipiodol in suspected intervertebral disc herniations. Lipiodol in our people may become a source of disability in itself if left in the canal and we do not routinely authorize its use.

Physicians treating our claimants are, in fact, part-time employes of the Commission. It is incumbent upon them to safeguard undue waste of their patients' financial resources (in this case the Industrial Commission).

NURSING SERVICES

Nurses are placed upon a case at the request of the physician in charge. The physician must obtain written authority for their use. For the first seven days, if a case is serious enough to demand special nursing care, no authority is needed. A certification on the nurses' fee bill by the physician is all that is necessary. But, thereafter, the nurse will not be paid unless the physician has requested additional nursing service setting forth the necessity for it and, in turn, receives written authorization from the Commission for the use of the nurses.

SHOULD AVOID OVER-HOSPITALIZATION

The length of hospital occupancy by our claimants is, on the average, longer than it should be. Our average cost per hospital day this year is $5.35. This is higher than ever before in the history of the Commission. Hospital care is expensive and should be limited to those whose cases are severe enough to warrant it. Patients should be removed from the hospital just as soon as it is safe. The discharge is the responsibility of the attending physician and it is his duty as a good citizen as well as physician to keep in mind this cost and to eliminate this waste in so far as is possible.

Our average rate of $5.35 per day entitles a patient to first-class ward service or two-bed ward service but there is a provision in the hospital contract that when the seriousness of the case warrants the use of a private room such service shall be given upon a certification to the hospital by the attending surgeon. To save any future controversy between physician, hospital and Commission it would be well to write such an order or certification on the bedside treatment sheet.

It should be understood that any private agreement between the hospital and the patient for better service than we contract for should provide for the difference between our rate and the rate charged for the extra service and that excess be paid for by the patient.

There seems to be a misunderstanding concerning re-admissions to hospitals. For this purpose, authorization must be requested in advance and accompanying the request there should be a description of the present physical findings which justify the necessity for re-hospitalization. Otherwise, it may be difficult, if possible at all, to collect the newly accumulated costs from the Commission.

STRICT ENFORCEMENT PROMISED

There may have been good reason in the past for leniency and laxness in the strict enforcement of the published rules and regulations for the guidance of medical relationships with the physicians. It is our intention after May 1 to enforce the rules more strictly. Copies of them can be obtained, if requested, by writing to the Commission. Compliance with them will reduce friction and will insure promptness in the payment of bills. Nothing will aid more than accurate and complete reports. Every question on the blanks means something to us at the main office and helps us to give your request intelligent consideration.

I shall close by quoting Section 1465-89 which governs disbursements for medical, nurse and hospital service and which I know you realize has been liberally construed by the Commission in the past:

> "In addition to the compensation provided for herein, the Industrial Commission of Ohio shall disburse and pay from the state insurance fund, such amounts for medical, nurse and hospital services and medicine as it may deem proper, not, however, in any instance, to exceed the sum of two hundred dollars unless in unusual cases, wherein it is clearly shown that the actually necessary medical, nurse and hospital services and medicine exceed the amount of two hundred dollars, such commission shall have authority to pay such additional amounts upon a satisfactory finding of facts being made and upon unanimous approval by such commission, such finding of facts to be set forth upon the minutes; and, in case death ensues from the injury, reasonable funeral expenses shall be disbursed and paid from the fund in an amount not to exceed the sum of two hundred dollars, and such commission shall have full power to adopt rules and regulations with respect to furnishing medical, nurse and hospital service and medicine to injured employes entitled thereto, and for the payment therefor."

Fairchild Bros. and Foster announce with deep sorrow the death of their president, Benjamin T. Fairchild, March 25, 1939.

Do You Know - - -

An excellent paper entitled "Syphilis and the Law", by Dr. John H. Stokes and Dr. Norman R. Ingraham, Jr., of the Department of Dermatology and Syphilology, University of Pennsylvania School of Medicine, Philadelphia, appeared in the March 25, 1939 issue of *The Journal of the American Medical Association*, pages 1133-1143. In addition to a study of venereal disease control through legislation, the authors presented a discussion of the false positive blood serologic test.

* * *

The 1940 session of the American Medical Association will be held in New York during the week of June 10.

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Dr. Tom D. Spies, associate professor of medicine, University of Cincinnati College of Medicine, has been appointed a member of the Council on Foods of the American Medical Association.

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The suit for $250,000 damages filed by Dr. John R. Brinkley against Dr. Morris Fishbein, Editor of *Hygeia*, and tried at Del Rio, Texas, March 22, resulted in a verdict for the defendant.

* * *

Blood tests of 78,388 undergraduates in more than 500 American colleges indicate that two out of every 1,000 are infected with syphilis, according to a recent report of The American Social Hygiene Association.

* * *

Dr. Harold R. Conn, Akron, was one of the guest speakers at the 88th Annual Session of the Iowa State Medical Society, April 25-27, at Des Moines. He participated in a symposium on fractures, discussing "The Treatment of Fractures of the Spine".

* * *

The average annual earnings of 1,901,958 Ohio workers whose wages were reported to the old age insurance department of the Federal Social Security Board in 1937, was $1,025. The national average was $890.

* * *

There were 365 cases of smallpox in Ohio in 1938, 122 in 1937 and 49 in 1936. Cases in the United States in 1937 totalled 11,806, compared with 7,844 in 1936.

* * *

Dr. Frank E. Adair, chairman of the cancer committee of the American College of Surgeons, New York, recently reported that there are now on record 29,195 cases of cancer which have remained cured over a five-year period, 63 per cent of them women.

Dr. Morris Fishbein, Chicago, Ill., grand consul of the Phi Delta Epsilon fraternity, delivered the principal address at the Sixth District Convention in Cleveland, April 16.

* * *

Cases of measles reported to the State Department of Health for the period of April 1-15, 1939 numbered 49, compared with 6,651 for the same period in 1938.

* * *

Dr. Julius M. Rogoff, visiting professor of physiology at the University of Chicago School of Medicine, and formerly associate professor of experimental medicine, Western Reserve University School of Medicine, has been appointed professor of endocrinology of the School of Medicine, University of Pittsburgh.

* * *

Cleveland has been selected for the 1940 meeting of the American College of Physicians.

* * *

Acting Warden W. F. Amrine of the Ohio Penitentiary recently announced that between 15 and 20 per cent of the 4,192 prisoners in the institution are syphilitic. Those in the infectious stage, numbering 213, have been segregated.

* * *

Dr. James J. Tyler, Warren, historian of the Masonic Grand Lodge of Ohio, has published an interesting brochure of 40 pages covering the founding of Masonry in Ohio.

* * *

In accordance with his wishes, the body of the late Dr. Arthur E. Osmond, Cincinnati, was turned over to the University of Cincinnati College of Medicine for study of the spinal ailment which caused his death. For 22 years Dr. Osmond suffered from posterior lateral sclerosis.

* * *

A fake eye specialist, representing himself as a government physician, and reported to be driving a car with Mississippi license plates, has been operating in western Ohio.

* * *

Dr. Ben R. McClellan and Dr. H. C. Messenger, Xenia, were re-elected dean and secretary, respectively, of the volunteer medical and surgical staff of the Ohio Soldiers' and Sailors' Orphans' Home, at its recent annual meeting.

* * *

Eight persons charged with practicing napropathy in Columbus without a license paid $1,600 in fines to the Municipal Court recently, when their sentences were confirmed by the Court of Appeals.

Group Medical Service and Voluntary Health Insurance Plans in Canada Analyzed; Results Summarized

A TIMELY contribution to the literature regarding medical services for the low-income and indigent groups appeared in the organization section of the March 25, 1939, issue of *The Journal of the American Medical Association*, pages 1161-1166. It is an address on "Canadian Experiments in Medical Economics", made by Dr. T. C. Routley, Toronto, general secretary of the Canadian Medical Association at the Thirty-Fifth Annual Congress on Medical Education and Licensure, Chicago, February 13, 1939.

Explaining the attitude of the Canadian Medical Association on the institution of health insurance in Canada, Dr. Routley said that the association has not authorized an expression of opinion either in favor or opposed to it. He stated that he had visited many of the 40 countries which now have state medicine or health insurance, partially or wholly under government control, and that he does not know of one scheme or plan now in effect in any country which he would wish to see introduced into Canada.

BRITISH COLUMBIA PLAN

Dr. Routley's address included a discussion of the British Columbia health insurance plan, which was passed by the legislature of that province March 31, 1936, to become effective on a date to be fixed by proclamation. A health insurance commission appointed to work out the details of the act invited a committee of physicians to assist in formulating the regulations. The committee advised the commission that it could not accept the provisions of the act or work under it. The entire medical profession in the province was asked to vote on the subject. When the ballots were counted, it was found that 622 physicians voted against accepting the scheme and 13 voted in favor of it. On February 19, 1937 the premier of the province, announced the postponement of the operation of the health insurance act, sine die. The act still remains inoperative.

The municipal doctor scheme of the province of Saskatchewan which has been developing during the past 25 years was the subject of illuminating comment by Dr. Routley. Of the 600 practicing physicians in the province, 121—approximately 20 per cent—are engaged either whole-time or part-time as municipal physicians. The accompanying table shows the breakdown of a typical municipal doctor's contract.

CARE OF POOR IN ONTARIO

Frequently during the past year reference has been made in discussions of possible medical service plans in Ohio, to the Ontario plan for medical care of the indigent and the Associated Medical Service plan in Toronto. Dr. Routley's analysis of these plans is therefore of particular interest, and is quoted in full herewith:

"Early in the recent depression through which the entire world has been passing, governmental authority in Canada decided that the unemployed and their dependents were entitled to food, fuel, shelter and clothing at the expense of the state. The medical profession contended that medical care for these less fortunate of our citizens was just as essential as food, fuel, shelter and clothing and that the state should not expect the doctor to contribute this service entirely at his own expense. In some parts of Canada this contention was heeded, and I shall now deal with the plan which was adopted in the province of Ontario.

"Four years ago the Ontario division of the Canadian Medical Association entered into an agreement with the government of the province on the following terms:

"For each person in the province in receipt of relief, including dependents (and at that time the number was approximately 400,000), the government agreed to provide the sum of 25 cents a month. The association in turn undertook to provide for relief recipients general practitioner services in the office and in the home, together with domiciliary obstetric services. There was to be as complete freedom of choice of doctor and patient as obtains in private practice. No finer opportunity could have been afforded the medical profession to demonstrate its ability to carry out the very principles it had been advocating for years,

CONTRACT OF A MUNICIPAL DOCTOR

Area covered		350 square miles
Population	2,800	
Work done for the year 1936:		
Office consultations	3,600	
Country calls	800	
Maternity cases	51	
Minor operations	90	
Major operations (within his competence)	15	
Immunization	300	persons
Salary paid		$4,500
Major operations (amount collected)		$ 300
Total Income		$4,800
From this deduct:		
For transportation (13,000 miles by car; 1,200 miles by snow plane; 250 miles by train)	$1,550	
For drugs	300	$1,850
Net amount for services rendered		$2,950

namely that no third party should intervene in a plan of providing medical services to a cross section of the community.

DETAILS OF PLAN

"Within thirty days the medical association, working through its fifty component branches, set up ninety-six medical committees, representing more than 4,000 practicing physicians, it being the duty of these committees in the respective areas to scrutinize and assess medical accounts and pass them on to the central administrative medical committee for final adjudication and payment. Rather than set up a special tariff for relief recipients, the association agreed to apply its regular tariff to the service, namely $2 for an office call, $3 for a house call and $25 for a normal confinement, with additional allowances for mileage. It was of course recognized at the outset that the money available would not be adequate to pay assessed accounts in full; the profession did not expect that the taxpayers, of whom they form a part, would be called on to pay 100 per cent of the medical bills for their less fortunate fellow citizens. Accordingly the plan adopted was as follows: Bills having been taxed, i.e. checked over as to their accuracy and fairness (and one should here interpolate that a very small minority of the profession were found to be unfair with their accounts), were then added up and the total was divided into the amount of money available each month, each doctor being paid pro rata according to the amount of his account and each month being considered a unit. At the end of two years the amount of money which the government agreed to pay was increased to 35 cents per relief recipient monthly, out of which the profession agreed to pay the druggists 6 cents a month for the necessary drugs and supplies.

RESULTS AND LESSONS

"What has four years of experience in providing medical care to this rather large number of people taught? I think a number of things of very definite interest and importance, certainly to Canada and perhaps to the medical profession in other parts of the world:

"1. The profession has demonstrated that it can organize and conduct satisfactorily a plan of medical services on a group basis without any political, governmental or sociological interference.

"2. The services available to a group such as that concerned demonstrated very clearly that morbidity quickly rises when resistance to meeting costs is removed. It was estimated at the inception of the scheme that morbidity might stand at somewhere between 6 and 8 per cent. What are the actual morbidity figures for this experiment? For the first year 12.78 per cent, for the second year 14.37 per cent and for the third year 15.40 per cent.

"In respect of remuneration to the profession, the records show the following payments in relation to total accounts as taxed and approved: first year 45 per cent, second year 38 per cent and third year 51 per cent. (In the third year the 35 cents a month capita rate applied.)

"Thus it will be seen that the doctors are contributing practically 50 per cent of the cost of medical services to this group. Moreover, information is now available as to the actual cost of such services, which information heretofore was not available in Canada.

QUALITY OF SERVICES HIGH

"What about the quality of the services rendered?

"A short time ago, while engaged in preparing this paper, I directed this question to the minister in the government under whose régime general relief is administered. He assured me that, so far as the government is concerned, the service is highly satisfactory, that the medical profession appears to be doing a splendid piece of work, that the relief recipients are satisfied with the care they are receiving and that the taxpayers who are providing the funds (over four years, approximately 4 million dollars) are satisfied that they are getting full value for their money.

"At no time has there been interference of any kind from any source with the administration of the scheme by the medical profession. Valuable statistics have been made available with regard to morbidity and service costs. A complete and unmistakable answer has been made to that section of the public who doubt the ability of the medical profession to organize and provide adequate medical care to a large group of people without the intervention of a third party. There is abundant proof of the satisfaction and confidence which has accrued to the profession in finding that it was able to discharge its responsibility to itself for the proper carrying out of this experiment in medical economics. If the profession can conduct an experiment of this magnitude for 400,000 people in the province of Ontario, I have not the slightest doubt that the profession anywhere on this great continent is capable of carrying out a plan of medical services for any section of the public so long as the administration is entrusted to the medical profession itself. The relationship between physician and patient has not been disturbed, and one cannot see why, in any scheme of group practice, that same relationship should not prevail. If medical science is to progress, if standards of medical practice are to continue to improve, if we are going to keep medicine pointing ever upward and onward to finer attainments and thus greater public benefit, we must see to it that we preserve against

assault from every side a position of intimate relationship with the public whom we serve without the intervention of a third party.

PROGRAMS IN CITIES

"In a number of cities in Canada somewhat similar schemes for medical relief have been devised.

"For the past five years a complete medical service has been supplied in greater Winnipeg to those on relief. The average number has varied from 45,000 to 35,000. Treatment is provided in the office, home and hospital; dental, optical, X-ray and laboratory services are included.

"A doctor, employed by the city, interviews all who apply for treatment, emergency patients excepted, and gives a permit to enable the patient to consult the doctor of his choice. The city reserves the right to have minor ailments, e.g., constipation and scabies, treated by the doctor controlling medical relief.

"A board of four doctors, two employed by the city and two representing practitioners, decides disputed questions, grants or refuses authority for operations, unusual treatments and expensive laboratory or X-ray tests, and renders decisions on contested accounts. In many instances it seeks the assistance of a specialist or a consultant.

"Accounts are rendered monthly by each practitioner on a reduced scale of fees. There is no capitation limit or fixed budget, but no doctor may collect more than $150 a month.

"In five years, disciplinary action has been requested for four practitioners of more than 300 who provided the service. There have been no cases of proved neglect by doctors, no tragedies and singularly few complaints by patients. Again the medical profession has supplied the answer to the question of its ability to provide adequate medical care without the intervention of a third party.

VOLUNTARY HEALTH INSURANCE

"In the field of voluntary health insurance an interesting experiment began in Ontario some eighteen months ago, when an organization known as Associated Medical Services was incorporated with the official blessing of the Ontario Medical Association, to offer complete medical, surgical, hospital and nursing service to those members of the community who were willing to budget for illness by paying regular premiums as follows:

"Subscriber, $2 a month.
"First dependent, $1.75 a month.
"Second dependent, $1.50 a month.
"Third dependent, $1.25 a month.
"Fourth and other dependents, $1 a month.

"During the first six months, 733 subscribers were enrolled. During the past twelve months this number has increased to 4,020. In one city in the province, 826 physicians of 950 have so far expressed their willingness to cooperate. There is of course free choice of doctor, and in all other respects the patient enjoys the same independence and freedom of action as obtains under ordinary private practice. The plan, organized and conducted by medical men on a nonprofit basis, appears to be giving complete satisfaction to an ever growing number of forehanded persons who desire to insure at a fixed premium against unpredictable costs of illness. Moreover, the relationship between doctor and patient is undisturbed, again emphasizing and proving the desirability and necessity of such confidential contact, and intervention, which is restricted to economics and not medical practice, appears in no wise to work a hardship but rather to solve for many persons a hazard which formerly produced much concern and often financial disaster.

SUMMARY AND CONCLUSIONS

Dr. Routley summarized the content of his paper as follows:

"1. On behalf of the medical profession of Canada, I wish to say that organized medicine is fully conscious of the medical needs of the public and is willing and able to meet these needs.

"2. The medical profession has demonstrated its ability to provide medical services for large groups of people under terms which give complete satisfaction to the recipients of the service and to the medical profession.

"3. A critical analysis of various schemes already in existence disclose weaknesses in many of them which the profession properly recognizes and refuses to accept.

"4. From experience in Canada I am confident that there is no need for persons outside the medical profession to assume that, unless they take it on themselves to arrange for adequate medical care for all the people, such care will be denied those who need it most.

"5. And, finally, may I say that I bring you greetings from your colleagues north of the 49th parallel of latitude and wish to assure you that, like yourselves, we recognize that the interests of medicine know no geographic boundaries or other limitations and that, with you, we look forward confidently to never ending opportunities to serve our fellow men, not forgetting the high calling which is ours."

Grant $4100 for Research in Ohio

The John and Mary Markel Foundation, New York, J. Pierpont Morgan, president, whose object is "to support research programs in medical science", has announced a grant of $4,100 to Dr. Carl J. Wiggers, professor of physiology, Western Reserve University School of Medicine, for a study of the nature of ventricular fibrillation by means of desensitizing the heart.

Regulations Governing Braces and Appliances and Prices For Such Material Adopted by Industrial Commission

FOLLOWING conferences with the Ohio Pharmaceutical Association and various orthopedic appliance companies, the State Industrial Commission has adopted the accompanying regulations governing the furnishing of braces and appliances to claimants upon authorization of the Commission and a schedule of prices for the same, effective April 10:

No fee will be allowed for measurement or fitting of appliances except to the attending physician. The attending physician is expected to inspect and to be responsible for the fitting of the appliance and to make the necessary minor changes. Requests to the Industrial Commission for these appliances should specify the type and the indications for each appliance.

SPECIFIC REQUIREMENTS

Appliances will be paid for by the State Industrial Commission only on the following conditions:

1. Condition for which the appliance is ordered is the result of an injury.
2. Claim has been allowed by the Commission.
3. Appliance has been ordered by a licensed physician authorized to obtain it.
4. In cases of emergency, an appliance may be supplied on order of the attending physician, and will be paid for after the case is allowed, provided it is considered by the Medical Section of the Industrial Commission as a necessary part of the treatment.

SCHEDULE OF PRICES

Back Braces:

Williams		$25.00
Taylor		25.00
Goldthwaite		15.00
Celluloid Jacket		35.00
Leather		
(plain)		35.00
(reinforced with steel)		40.00
Head supports for braces		10.00
Corsets—reinforced, including pads		10.00—15.00
Sacro-iliac belts, including pads		
	5″ or less	5.00
	6″	6.00
	7″	6.50
	8″	7.00
Elastic belts	6″	4.50
	7″	5.00
Semi Elastic belts	6″	5.50
	8″	6.50

Neck Braces:

Reinforced leather collar	25.00

Leg Braces:

Long leg caliper—without knee	15.00
With knee lock and joint	25.00
With knee joint	20.00
Short leg caliper brace	10.00
Foot plates for braces, including ankle joint, each	5.00
Straps attached to braces—not to exceed	5.00

Arm:

Aeroplane or abduction splint	12.00
Cock up splint made to model	3.00

Shoes

Elevation—	
Cork, leather covered, 2″	8.00
Wood, leather covered, 2″	5.00
Steel, leather covered	10.00
Leather, ½ to 1½″	1.00— 3.00
Anterior heels—nailed—pair	.50
Wedges or patches—nailed—each	.25
Insoles to model—leather, rubber, felt, with supports for longitudinal or metatarsal arches—each	3.00
Steel or Whitman type—each	4.00
Sockets attached to shoes—	
without stops—each	1.00
with stops—each	1.50
(This applies only to attaching to extra shoes. The attachment to one pair of shoes is included in the price of caliper brace).	

Crutches:

Including tips each	1.25
Including tips pair	2.25

Trusses for Hernia:

Elastic, single	5.00
Half spring	5.00
Dr. Hood type	
(single leather pad)	6.00
(soft rubber pad)	7.00

(In cases where a special truss is required exceeding this cost a request explaining the condition, type of appliance needed and name of the manufacturer or trade mark should be filed with and the approval obtained of the Medical Section, Industrial Commission).

Other braces or appliances will be paid for in proportion to the above list. In case the list price is lower than the above, the list price will be paid.

Medical and Hospital Bills Totaling $620,197 Paid By W.P.A. In Ohio; Important Regulations Re-Emphasized

SINCE the establishment of the Works Progress Administration in Ohio late in the summer of 1935 to April 1, 1939, the United States Employees' Compensation Commission has paid private physicians and hospitals $620,197.70 for the treatment and care of injured W.P.A. workers. An additional amount of $13,502.03 has been paid for medical and hospital care of injured employees of the Farm Security Administration. These amounts are exclusive of expenditures in government hospitals. The total number of claims filed during that period was 50,747. There were approximately 240,000 W.P.A. workers in Ohio during March, 1939. During the month 1,642 injured W.P.A. workers were treated by private physicians and 695 cases of minor injury were treated in government facilities.

Under the direction of Glen I. Hay, state compensation officer for W.P.A. in Ohio, the system has been generally satisfactory to the injured workmen and to the physicians who have treated their injuries. A relatively small number of complaints have been made by physicians.

In order to clarify the regulations of the U. S. Employees' Compensation Commission, Mr. Hay recently sent a form letter to the approximately 4,000 Ohio physicians who have treated WPA injured employees during the past three years.

Excerpts from that communication are quoted herewith:

USE OF GOVERNMENT FACILITIES

"Your attention is called to the Commission's regulations which **require injured employees to be referred to government facilities to be used to the extent they are available.** If one of your patients may be referred to a government facility there is no reflection on your professional skill or services you are rendering. In cases where the facilities are not available, the State Compensation Officer of W.P.A. or his representative (who is the timekeeper on the project where the man received his injury) may authorize medical care by reputable private physicians and hospitals. When private physicians are used an attempt is made for a wide distribution among physicians as far as practicable.

WRITTEN AUTHORIZATION NECESSARY

"Please note that it is an indispensable requirement that **authority for treating injured security (W.P.A.) workers must be issued in writing before medical services may be rendered at the expense of the United States Government.** In cases where there is no doubt concerning the right of the employee to receive medical care, Special Form CA-16, or a letter containing the information required by that form, must be issued by the person in charge of the project or a compensation representative (usually the timekeeper) in sending an injured employee to a physician or hospital. If there is doubt whether the disability of an employee is due to a traumatic accident or whether the injury was sustained in the performance of duty, the worker should be given a Special Form CA-17 for examination and report only. It is pointed out that all cases of sprains, strains, back injuries or hernia are automatically classed as doubtful claims and are only referred to the physician on Special Form CA-17 for an examination and report. No authorization for treatment is permissible in such cases except upon the express authority of the Commission. All treatments of these doubtful cases, after the first examination, are rendered at the expense of the injured, prior to the express authorization of the Commission.

"Accordingly, if any person seeks services without such written authority, even though you may have reason to believe that he was a W.P.A. employee and injured on the project, **the patient should be required to furnish you with proper authorization** before you render services at the expense of the Government. You may take the matter of authorization up with the timekeeper on the project who shall supply it, together with a blank voucher upon which to submit your fees for authorized services, within 24 hours. Otherwise you may be obliged to collect your fees from the person who received the treatment.

PHYSICIAN'S FEES

" 'Medical fees will be paid at rates not in excess of the **minimum charges** prevailing in the community for similar services.' Your special attention is called to the fact that this regulation applies only to W.P.A. workers who are necessarily in 'relief status', and who are not entitled to the same benefits as a federal employee. Your compliance with this requirement will be expected. However, in case of treating an administrative employee of W.P.A., normal fees may be charged in the same manner as for another person of normal income or as for another federal employee. Your care in making a distinction between a W.P.A. worker and a regular federal employee is especially desired when submitting your fee bills.

"The Compensation Act, as extended to employees receiving security payments, does not

provide for a medical examination to determine an employee's physical qualifications for work, in selecting applicants for employment and the Commission cannot pay for such examinations. Employees are presumed to be able to do the work they undertake to do. **No responsibility is assumed for injuries on account of or arising out of their work, except injury sustained by traumatic accident.**

ACCIDENT DEFINED

"The Commission differentiates between an injury by accident and a physical condition, which although incident to employment, does not have accident as a casual factor, accident being defined as a "sudden violent change" rather than the succession of circumstances which eventually bring about a change, however violent the ultimate change may be. Bear in mind that the claimant must describe the accident; that is, he must describe a definite, single, unusual happening caused by circumstances outside of his normal activities which might reasonably be expected to have a normal result, since the benefits of the compensation act are definitely limited to injuries resulting from a sudden undesigned, violent change or disturbance where damage or hurt in the form of blood, bruise, burn, break, or any type of bodily mutilation which is definitely the result of a shocking force and is demonstrated by objective or painful evidences.

MEDICAL REPORT

"The medical report should be filled out on the reverse side of the authorization (either Special Form CA-16 or Special Form CA-17) and immediately returned to the project. There is no case where the physician needs to fill out duplicate reports. If you fill out the original, our clerical forces will prepare any necessary copies required by government procedure. In cases of disabling injuries, physicians may be requested to make a medical report on the reverse side of Form CA-4 or CA-8, at semi-monthly intervals. It is especially requested that the physician report the days of disability according to his medical findings, instead of the man's scheduled days for work. For example, if the injured is able to return to work on Saturday, April 1, do not give date of Monday, April 3, or some other day on which injured's schedule returns him to work. In cases requiring a longer period of treatment, medical reports for each 30-day period of treatment should be submitted in any event, together with your fees for such period with a diagnosis and prognosis of the case.

FORWARD FEE BILLS THROUGH STATE OFFICE

"**Your fee bill should never be forwarded directly to the Washington Office** as it must be certified by this administration in Ohio before consideration can be given for payment by the Commission. You may return the voucher to the timekeeper on the project or you may forward the voucher directly to this office (8 East Chestnut St., Columbus, Ohio). The injured worker should be requested to sign the voucher after it has been completed and before forwarding.

PAYMENT OF PHYSICIAN'S FEES

"It is the desire of the Commission to pay vouchers within a period of 30 days, but at the present time, on account of the continuous rising amount of business, it now requires from 60 to 90 days to effect payment. It is, therefore, suggested that if you have not as yet received payment of voucher within the 90-day period after it has been submitted, that an inquiry be directed to this office and a special effort will be made to expedite payment."

Mr. Hay concluded his communication with an expression of appreciation to members of the medical profession for their cooperation. He will be pleased to answer requests for information concerning regulations of the U. S. Employees' Compensation Commission, or questions pertaining to specific cases. His adddress is 8 E. Chestnut St., Columbus, Ohio.

Mid-Summer Examinations of Medical Board Scheduled for June 6-9

Mid-Summer examinations of the State Medical Board will be held at Columbus, June 6, 7, 8 and 9. The written examinations will be conducted in the new gymnasium of Ohio State University, and the practical examinations at University Hospital.

Included among the business transacted by the Board on April 4 were two cases of disciplinary action. Dr. Irwin H. LeBarre, Mansfield, was suspended from the practice of medicine and surgery for six months, for violation of the Harrison Narcotic Act. The certificate of Walter B. Stribley, osteopath, Painesville, was suspended for one year for violation of the limits placed upon the practice of osteopathy by law. Dr. H. M. Platter, secretary of the State Medical Board, advised the members that Attorney-General Herbert has ruled that a mechanotherapist is not permitted to administer anti-tetanus serum.

Can Swap A. M. A. Journal for Others

If a physician is in an office with one or more physicians and each is a Fellow of the American Medical Association, it is likely that all receive copies of *The Journal of the A.M.A.* In such cases, other scientific publications of the A.M.A. may be substituted for *The Journal.* By this arrangement, one physician in the group could elect to take *The Journal*, the others could select some other publications, thus affording the office access to two or more of the several A.M.A. publications without extra cost.

In Memoriam

Frank Warnock Brand, M.D., Urbana; Cleveland University of Medicine and Surgery, Homeopathic, 1889; aged 73; died March 29. Dr. Brand retired several years ago after having practiced in Urbana for many years. He was a member of the Masonic Order. A son, a daughter and a brother survive.

Thomas W. Burton, M.D., Springfield; Eclectic College of Indiana, Indianapolis, 1892; aged 79; died March 23. The first Negro physician in Springfield, Dr. Burton practiced there for over 40 years. He was prominent in the activities of his race, and was the author of two books, "Experience", and "What Experience Has Taught Me". Surviving are his widow, a daughter and a son.

H. Frank Clark, M.D., Rarden; licensed in 1896; aged 79; died April 6. Dr. Clark practiced for many years in Seaman, Rarden and Portsmouth, and for a number of years was physician for the Norfolk & Western Railroad Company. His widow, five daughters and five sons survive.

Thomas Eli Craig, M.D., Sabina; College of Physicians and Surgeons, Baltimore, Md., 1892; aged 74; member of the Ohio State Medical Association and the American Medical Association; died April 2. A former president of the Clinton County Medical Society, Dr. Craig practiced in Sabina for 47 years. He had served on the local Board of Education, and was a member of the Lions Club and the Methodist Church. His widow, a daughter, two sons and two sisters survive.

John Noble Ellison, M.D., Portsmouth; Miami Medical College, Cincinnati, 1902; aged 62; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 30. A native of Adams County, Dr. Ellison practiced in Sardinia for 12 years and in Portsmouth for 25 years. He was a member of the staff of Mercy Hospital and a former president of the Hempstead Academy of Medicine of Scioto County. Dr. Ellison was a member of the Presbyterian Church. Surviving are his widow, his mother, a daughter and a sister.

Arthur LeRoy Garrison, M.D., Elyria; Western Reserve University School of Medicine, Cleveland, 1902; aged 63; died March 20. Dr. Garrison practiced in Ravenna for one year, Sullivan, Medina County, for 14 years and until his retirement a year ago, practiced in Cleveland. He was a member of the Masonic Order. His widow, a daughter, a son, one sister, and two brothers survive.

Walter James Irwin, M.D., Cleveland; Cleveland College of Physicians and Surgeons, 1904; aged 61; member of the Ohio State Medical Association and the American Medical Association; died April 7. Dr. Irwin practiced in Cleveland for 35 years. He was a member of the staff of Glenville Hospital. Surviving are his widow, four daughters and a son.

Levi Harry Leonard, M.D., Manchester; Cleveland College of Physicians and Surgeons, 1895; aged 73; member of the Ohio State Medical Association and Fellow of the American Medical Association; died March 24. Dr. Leonard began the study of medicine after several years as a teacher in the Brown County schools. He opened an office in Mt. Orab, in 1896, and located in Manchester 22 years ago. Dr. Leonard was active in the civic as well as the professional life of the community. He had served on the local Board of Education; was a charter member of the Lions Club; member of the Knights of Pythias; officer and member of the Methodist Church, and president of the Board of Trustees of Alfred Holbrook College. His widow, a daughter, a son and a brother survive.

James Clark McClester, M.D., Harrisville; Ohio Medical University, Columbus, 1894; aged 70; died March 23. Dr. McClester practiced in Harrisville for 45 years. During the World War he was a lieutenant in the Medical Corps of the U. S. Army. Dr. McClester was a member of the Methodist Church. Three sisters survive.

Arthur Edwin Osmond, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1904; aged 61; former member of the Ohio State Medical Association and the American Medical Association; died March 9. A pioneer in public health, Dr. Osmond was especially active in agitation for stream purification and study of occupational diseases. During the World War, he was a captain in the Medical Corps of the U. S. Army. His widow, a daughter and two sons survive.

Harlan Myron Page, M.D., Warren; Jefferson Medical College of Philadelphia, 1892; aged 72; former member of the Ohio State Medical Assosiation and the American Medical Association; died April 2. Dr. Page retired because of ill health five years ago after having practiced in Warren for 31 years. A graduate of Hiram College, he established the medical department there, and was its first professor. Dr. Page was a former member of the staff of Warren City Hospital and a member of the Christian Church. His widow and a daughter survive.

Henry Rueben Plum, M.D., Lancaster; Starling Medical College, Columbus, 1898; aged 71; member of the Ohio State Medical Association and

the American Medical Association; died April 2. Dr. Plum practiced in Lancaster for over 40 years. He was vice-president of the Lancaster National Bank. Surviving are his widow, one daughter, three sisters and two brothers.

Frederick F. Quilliams, M.D., Cleveland; Cleveland Medical College, Homeopathic, 1897; aged 69; died March 8. A practicing physician in Cleveland for 42 years, Dr. Quilliams was active in Masonic work and a member of the Odd Fellows, Foresters, Woodmen of the World, the Manx Society and the Church of Christ. His widow, a sister and a brother survive.

Frank Ray, M.D., Chesterhill; Starling Medical College, Columbus, 1894; aged 72; member of the Ohio State Medical Association and the American Medical Association; died March 24. Dr. Ray first practiced in Chesterhill, later in Columbus and Bartlett, returning to Chesterhill three years ago. Surviving are his widow, a daughter and a son.

Harris Holmes Vail, M.D., Cincinnati; Harvard University Medical School, Boston, 1917; aged 47; member of the Ohio State Medical Association, Fellow of the American Medical Association, member of the American Academy of Ophthalmology and Oto-Laryngology, and the American Otological Society, and certified by the American Board of Ophthalmology; died April 10. A son of the late Dr. Derrick T. Vail, Sr., Dr. Vail was a lieutenant, senior grade, in the United States Navy, during the World War. He was a staff member of Christ and Good Samaritan Hospitals, Cincinnati, a clinician in ear, nose and throat at General Hospital, and an instructor in that specialty at the University of Cincinnati College of Medicine. His widow, two daughters, a son, a brother, Dr. Derrick T. Vail, Jr., and two sisters survive.

Thomas Andrew Vogel, M.D., Columbus; Georgetown University School of Medicine, Washington, D. C., 1921; aged 46; member of the Ohio State Medical Association and the American Medical Association; died April 1. Dr. Vogel was resident physician at Mt. Carmel Hospital, Columbus, from 1922 to 1924, and was on the obstetrical staff of Ohio State University College of Medicine from 1922 to 1932. He did postgraduate work in Vienna in 1937. Dr. Vogel was a member of the staffs of Mt. Carmel, St. Anthony's and St. Ann's Hospitals. A member of the Catholic Church, Dr. Vogel was active in the Catholic Order of Foresters, Knights of St. John, Knights of Columbus, Holy Name Society and the Aquinas College Alumni Association. He was a member of Phi Kappa and Chi Phi fraternities and the Elks Club. Surviving are his widow, a son, two sisters and three brothers.

For unavoidable reasons, the fifth of the series of articles on "Office Problems of the Physician", by Stanley R. Mauck, executive director, Columbus Bureau of Medical Economics, does not appear in this issue of The Journal. The next article, entitled "The Follow-Up of Delinquent Accounts", will be published in the June issue.

Ohio Hospital Association Meets

Rev. Frank C. Fowler, D.D., superintendent of White Cross Hospital, Columbus, was named president-elect of the Ohio Hospital Association at the closing session of the Twenty-fifth Annual Meeting of the association held in Columbus, April 11, 12 and 13. Dr. H. L. Rockwood, Mt. Sinai Hospital, Cleveland, was installed as president. Other officers are: Miss Ada I. Leonard, Middletown, and Sister Ferdinand, Columbus, vice-presidents and Msgr. M. L. Griffin, Cleveland, treasurer. Dr. Fred G. Carter, Cincinnati, was the retiring president.

Other organizations in session during the hospital meeting were: Ohio Dietetic Association; Ohio Association of Record Librarians; Ohio Association of Nurse Anesthetists; Hospital Obstetric Society of Ohio, and the Ohio Society of Medical Technologists.

Ohio physicians who participated in the programs included: Dr. M. F. Steele, Dr. George T. Harding, Dr. Chas. A. Doan, Columbus; Dr. Burdett Wylie, Dr. C. S. Woods, Dr. David Steel, Dr. Howard P. Taylor, Cleveland; Dr. Loyal E. Leavenworth, Canton; Dr. August H. Schade, Toledo; Dr. Howard W. Robinson, and Dr. Carl A. Wilzbach, Cincinnati, and Dr. Walter W. Webb, Dayton.

Postgraduate Course of the Toledo Academy Draws Record Attendance

Approximately 125 physicians of Toledo and vicinity, the largest attendance in many years, registered for the Annual Postgraduate Course of The Academy of Medicine of Toledo and Lucas County at Toledo, April 4-7. Lectures and clinical-pathological conferences on "Gastrointestinal Diseases" were presented by Dr. Chester M. Jones, assistant professor of medicine, Harvard University Medical School, Boston. Arrangements have been made to have the lectures and conferences transcribed. Copies will be available to all those who registered for the course. The following committee arranged the program: Dr. J. A. H. Magoun, chairman; Dr. E. Benjamin Gillette; Dr. Will Gardiner; Dr. Carll S. Mundy; Dr. J. A. Muenzer; Dr. L. E. Payne; Dr. C. E. Price; Dr. H. J. Parkhurst and Dr. H. M. Scott.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

An all-day session of the Adams County Medical Society was held at the Court House, West Union, Wednesday, April 19. The morning program consisted of a business meeting; an address by Dr. O. K. Engelke, West Union, on "Pasteurization of Milk", discussed by Dr. J. G. Inman, Manchester, and a report by the legislative committeeman, Dr. S. J. Ellison, West Union. Members of the society were dinner guests of the West Union members at the Hooper Home Hotel. In the afternoon, Dr. C. E. Kiely, Cincinnati, spoke on "Dementia Praecox and Its Treatment". Dr. R. E. Wenrick, Winchester, was the discussant. An address on "Prenatal and Postnatal Care", by Dr. R. B. Ellison, Peebles, was discussed by Dr. R. L. Lawwill, Seaman.—O. T. Sproull, M.D., secretary.

BUTLER

At a meeting of the Butler County Medical Society, Thursday, March 23, at Fort Hamilton Hospital, Hamilton, the society went on record as favoring S.B. 104, providing for the establishment of group medical service plans in Ohio, and in opposition to S. 1620, the National Health Bill, introduced by U. S. Senator Wagner. Telegrams were ordered sent to Senators Taft and Donahey and Ohio members of Congress voicing opposition to S. 1620.—Vera C. Iber, M.D., secretary.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during April:

April 4—"The Reactions Following the Therapeutic Use of Poison Ivy Antigen for Poison Ivy Dermatitis", by Dr. Leon Goldman, discussed by Dr. H. L. Claassen; "Problems in Brain Tumor Diagnosis, Informative Experiences", by Dr. Howard McIntyre, with discussion by Dr. Joseph P. Evans and Dr. Frank H. Mayfield.

April 11—"Premature Separation of the Normally Implanted Placenta", by Dr. John G. Fleming, Cincinnati, discussed by Dr. James M. Pierce; "Mortality of Appendicitis", by Dr. Mont R. Reid, discussed by Dr. Max M. Zinninger and Dr. J. Louis Ransohoff.

April 18—"Observations on Small Intestinal Intubation", by Dr. T. Grier Miller, professor of clinical medicine, University of Pennsylvania School of Medicine, Philadelphia, Pa.

April 25—Hospital Night. Following case reports by members of the staff of Christ Hospital: "Disassociated Amyotropic Paralysis of Brachial Plexus Following Anti-Tetanic Serotherapy", by Dr. Robert B. Cofield and Dr. J. L. Tuechter; "Uretero-Ureteral Anastamosis for Impermeable Stricture of Ureter", by Dr. Parke G. Smith; "Streptococcic Meningitis Treated With Sulfanilamide", by Dr. Robert E. Howard and Dr. Howard D. Fabing; "Splenic Anemia Treated by Splenectomy", by Dr. Ralph Wm. Good; "Two Interesting Cases of Subacute Bacterial Endocarditis", by Dr. H. H. Shook; "Uterus Didelphys and Congenital Absence of Right Kidney", by Dr. Davis Lillard; "An Unusual Case of Carcinoma of the Cecum with Colloid Degeneration", by Dr. Reed A. Shank and Dr. William M. Doughty.—Bulletin.

HIGHLAND

Dr. E. B. Ferris, Cincinnati, spoke on "Heart Disease", and Dr. James Ruegsegger, Cincinnati, discussed "Treatment of Pneumonia" at a meeting of the Highland County Medical Society, Wednesday noon, April 5, at the Hotel Parker, Hillsboro.—News clipping.

WARREN

Dr. W. Selden Hamilton, Cincinnati, was the principal speaker at a meeting of the Warren County Medical Society, Tuesday, April 4, at Lebanon.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

The proposed group hospitalization plan for Springfield was approved by the Clark County Medical Society at a meeting at the Hotel Shawnee, Springfield, Thursday, March 30. A motion was adopted to the effect that any change made in the plan by the Chamber of Commerce, should first have the approval of the society.

Dr. C. G. Weigand, of Eli Lilly and Company, spoke on "Therapeutic Application of Vitamins" at a meeting of the society, Thursday, April 13. Members of the Springfield Dental Society were guests at the meeting.—G. M. Lane, M.D., secretary.

DARKE

Dr. Hugh G. Beatty was the guest speaker at a meeting of the Darke County Medical Society, Friday evening, April 21, at Greenville.—W. D. Bishop, M.D., secretary.

GREENE

A resolution opposing the Wagner National Health Bill was adopted by the Greene County Medical Society at a meeting Thursday, April 6, at the Court House, Xenia. Copies of the resolution were sent to Senators Taft and Donahey and

Representative Clarence J. Brown.—D. F. Kyle, M.D., secretary.

MIAMI

A symposium on 1938 advances in medicine, surgery, and eye, ear, nose and throat was presented by Dr. Chas. Baker, West Milton; Dr. J. R. Caywood, Piqua, and Dr. M. M. Brubaker, Troy, at a meeting of the Miami County Medical Society, Friday, April 7, at Stouder Hospital, Troy. Two motion pictures were also shown—"Colles Fracture", through the courtesy of The Petrolagar Company, and "Occupational Therapy", from the American Medical Association. Pending legislation was discussed.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Hugo Roesler, Temple University, Philadelphia, Pa., spoke on "Cardio-Vascular Disease and Its Relationship to Respiratory Complications", at a meeting of the Montgomery County Medical Society, Friday evening, April 7, at the Miami Hotel, Dayton.

At a meeting of the society, Friday evening, April 21, Dr. F. H. Mayfield, Cincinnati, spoke on "Low Back Pain with Special Reference to Protruding Intra-Vertebral Discs and Hypertrophy of the Ligamentum Flaxum."—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

AUGLAIZE

Two Toledo physicians presented an interesting program at a meeting of the Auglaize County Medical Society, Thursday evening, April 13, in the Community Library Room of the Post Office Building, St. Marys. Dr. Leo P. Dolan spoke on "Urological Problems as Best Handled by the General Practitioner", and Dr. A. A. Brindley discussed "Different Types of Anesthesias."—Chas. C. Berlin, M.D., secretary.

MARION

Dr. Claude B. Norris, Youngstown, spoke on "Fungus Infections of the Skin", and Dr. R. L. Gettman, Marion, reported a case of diaphragmatic hernia at a meeting of the Marion Academy of Medicine, Tuesday night, April 4, at City Hospital, Marion.—News clipping.

SENECA

At a meeting of the Seneca County Medical Society, Thursday evening, April 13, at Fostoria City Hospital, Dr. Wm. Gordon Hartnett presented clinical cases and discussed "The Diagnosis of the Cardiac Arrhythmias by Aid of the Electrocardiograph."—Edmund F. Ley, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

HENRY

Dr. F. G. Maurer, Lima, gave a very interesting talk on "Clinical Aspects of the Common Cardiac Arrythmias", and Dr. M. A. Mulvania, Lima, followed with a well-prepared paper on "Hemorrhage in Pregnancy and Labor", at a dinner meeting of the Henry County Medical Society, Tuesday, April 11, at Biddie's Restaurant, Napoleon. Following an interesting round-table discussion, the society adopted a resolution opposing S. 1620, the Wagner Bill, and authorized the secretary to so notify the Ohio senators and Congressman Clevenger.—J. R. Bolles, M.D., secretary.

LUCAS

The following programs were presented by The Toledo Academy of Medicine during April:

April 7—General Meeting. "Gastro-Enterological Manifestations Due to Disease Other Than That of the Gastro-Intestinal Tract", by Dr. Chester M. Jones, assistant professor of medicine, Harvard University Medical School.

April 14—Section of Pathology, Experimental Medicine and Bacteriology. "Recent Studies in Experimental Pneumonia", by Dr. Walter J. Nungester, associate professor of bacteriology, University of Michigan Medical School.

April 21—Medical Section. "The Vitamin Problem", by Howard Bishop Lewis, professor of biological chemistry, University of Michigan.

April 28—Surgical Section. "Drinker Respirator in Respiratory Failure", by Dr. David R. Barr, Grand Rapids.—Bulletin.

PUTNAM

Dr. C. S. Baker, Lima, discussed "The Commoner Diseases of Infancy, with Particular Reference to Immunization", at a well-attended meeting of the Putnam County Medical Society, Tuesday, April 4, at Hotel Putnam, Ottawa.—H. N. Trumbull, correspondent for *The Journal*.

SANDUSKY

At a meeting of the Sandusky County Medical Society, Thursday, March 23, Dr. Arthur P. R. James, Toledo, discussed "Diseases of the Skin."—News clipping.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Dr. J. Edson Brown, Cleveland, spoke on "Fractures" at a meeting of the Ashtabula County Medical Society, Tuesday night, March 14, at Ashtabula.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during April:

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RADIUM

April 7—Clinical and Pathological Section. "Osteogenic Sarcoma", by Dr. O. A. Weber; "Tracheo-Bronchial Fistulae", by Dr. F. C. Oldenburg; "Bilateral Paralyses Following Skull Fractures", by Dr. M. A. R. Hennessy; "Axillary Tumors", by Dr. E. P. Neary; "Pancreatic Cyst", by Dr. J. E. Hallisy; "Unusual Upper Abdominal Tumors", by Dr. J. R. Andrews; "Bone Changes in Von Recklinghausen's Disease", by Dr. C. G. Barber.

April 14—Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Failure of Vital Functions Associated with Lesions in the Pons", by Dr. A. T. Steegmann and Dr. H. A. Williams; "Size of Heart Muscle Fibers in Chronic Cardiac Compression", by Dr. Joseph T. Roberts and Dr. Claude S. Beck; "Studies in Occlusion of Coronary Arteries and Veins", by Dr. Beck; "Maximum Blood Flow in the Human Lower Extremity", by Dr. George W. Wright and Dr. Kenton Phelps; "Electrolyte and Water Exchanges in Blood and Between Blood and Muscle in Adrenal Insufficiency in the Dog", by Dr. Frederick R. Mautz, Dr. Robert C. Mellors, Edward Muntwyler, Ph.D., George H. Mangun, Ph.D.

April 21—Regular Academy Meeting. "Recent Advances in the Diagnosis and Treatment of Jaundice", by Dr. Henry L. Bockus, professor of gastro-enterology, University of Pennsylvania Graduate School of Medicine, Philadelphia, Pa.

April 25—Military Section. "The Lakeside Unit in Cleveland and in France", by Dr. George W. Crile.

April 26—Obstetrical and Gynecological Section. "Progress in Obstetrical Cases", by Dr. Scott C. Runnels; "Red Degeneration of Uterine Fibromyomata", by Dr. R. L. Faulkner.

April 26—Industrial Medicine and Orthopedic Section. "Tetra-Ethyl Lead Poisoning", by Dr. K. D. Bryson; "Multiple Myeloma", by Dr. J. J. Marek; "Giant Cell Tumor", by Dr. A. H. Reed; "Choice of Anesthesia in Orthopedic Surgery", by Dr. R. J. Whitacre; "Fracture Dislocation of Lumbar Spine with Paralysis", by Dr. Wallace Duncan.—Bulletin.

ERIE

Dr. William J. Engel, Cleveland, spoke on "The Treatment of Acute Urinary Retention" at a meeting of the Erie County Medical Society, Wednesday, April 5, at the Hotel Rieger, Sandusky, to which physicians of surrounding counties were invited.—News clipping.

GEAUGA

The Wagner Health Bill, S. 1620, was considered at a special meeting of the Geauga County Medical Society, Wednesday, March 29, at Burton. A resolution opposing the bill was adopted by the society and copies of the resolution were ordered sent to the Ohio senators and congressmen. A copy was also sent to each member of the society, with the request that each write a personal letter to Senators Taft and Donahey protesting the passage of the bill.—Lucy Stone Hertzog, M.D., president.

HURON

A talking picture on "Empyema" was shown at a meeting of the Huron County Medical Society, Wednesday night, March 8, at Willard High School. Dr. A. D. Robertson led the discussion.—News clipping.

LORAIN

Dr. Roger O. Egeberg, Cleveland, spoke on "The Treatment of Allergic Patients in General Practice", at a dinner meeting of the Lorain County Medical Society, Tuesday, April 11, at the Elks' Restaurant, Elyria.—L. H. Trufant, M.D., secretary.

Sixth District

(COUNCILOR: WM. M. SKIPP, M.D., YOUNGSTOWN)

ASHLAND

A meeting of the Ashland County Medical Society, Friday, March 10, at Ashland, was attended by 18 of the 25 members of the society and one guest, Dr. E. P. McCullagh, Cleveland. Dr. Robert S. Dinsmore, Cleveland, gave an interesting talk on "The Gallbladder", emphasizing the importance of the clinical picture and some recent laboratory methods of diagnosis.

Dr. Claude B. Norris, Youngstown, spoke on "Some Common Disorders of the Skin", at a meeting of the society, Friday, April 14.—H. Wayne Smith, M.D., secretary.

PORTAGE

Dr. Bernard H. Nichols was host to the members of the Portage County Medical Society at a meeting at his home in Ravenna, Tuesday evening, April 6. The guest speaker was Dr. J. Warrick Thomas, of the Department of Allergy of Cleveland Clinic—E. J. Widdecombe, M.D., secretary.

STARK

Seven members of the Stark County Medical Society presented a Symposium on Fractures at a meeting of the society, Thursday evening, April 13, at the Elks' Club, Canton. Speakers and their subjects were: Dr. W. E. Brogden, "Fractures of Shaft of Femur"; Dr. A. W. Warren, "Fractures of Hip"; Dr. Paul R. Lecklitner, "Observations on Treatment of Fractures about Wrist"; Dr. K. E. Liber, "Errors in Treatment of Injuries about Elbow"; Dr. R. L. Rutledge, "Fractures of Spine"; Dr. Karl Simon, "Fractures about the Ankle"; Dr. L. L. Lawrence, "Fractures of Cranium".—Clair B. King, M.D., secretary.

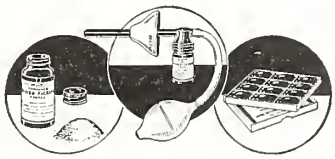
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and Treatment of Common Contagious Diseases —Diphtheria, Measles, Pertussis, Scarlet Fever", at a meeting of the Summit County Medical Society, Tuesday evening, April 4, at the Mayflower Hotel, Akron.—Bulletin.

Seventh District

(COUNCILOR: C. W. KIRKLAND, M.D., BELLAIRE)

COLUMBIANA

At a meeting of the Columbiana County Medical Society, Tuesday evening, April 11, at the American Legion Hall, Lisbon, Dr. John A. Malcolm, Pittsburgh, spoke on "Neurasthenia and Recent Advances in Neurology".—News clipping.

TUSCARAWAS

Dr. Drew L. Davies, Columbus, discussed "First Aid Emergency Surgery" and Dr. F. C. Hugenberger, Columbus, spoke on "Toxemias of Pregnancy" at a meeting of the Tuscarawas County Medical Society, Thursday evening, April 13, at Newcomerstown.—News clipping.

Eighth District

(COUNCILOR: E. R. BRUSH, M.D., ZANESVILLE)

GUERNSEY

A joint meeting of the Guernsey County Medical and Dental Societies was held at noon, Thursday, March 16, at the Berwick Hotel. Stanley R. Mauck, executive director, Columbus Bureau of Medical Economics, was the guest speaker.

A general business meeting of the society was held at the Berwick Hotel, Thursday noon, April 6.—O. Reed Jones, M.D., correspondent for *The Journal*.

MORGAN

Dr. Robert S. Martin, Zanesville, read a paper on "Otitis Media, with Resulting Mastoiditis", at a meeting of the Morgan County Medical Society, Tuesday evening, April 18, at McConnelsville. Colonel Clyde Jones, retired medical officer of the U. S. Army, who is now residing in Morgan County, was a guest.—Edgar Northrup, M.D., secretary.

MUSKINGUM

"Cy" Hunterford, well-known Pittsburgh cartoonist, was the principal speaker at the Annual Banquet of the Muskingum County Academy of Medicine, Thursday evening, March 30, at the University Club, Zanesville.—Beatrice T. Hagen, M.D., secretary.

WASHINGTON

A well-attended and interesting meeting of the Washington County Medical Society was held at the LaFayette Hotel, Washington, Wednesday, April 12. Dr. A. R. Sidell reported on 16 cases of pneumonia treated by sulfapyridine. He also gave a resumé of the present literature

PNEUMOCOCCIC TYPING—NEUFELD METHOD
URINALYSIS
BLOOD
BLOOD CHEMISTRY
SPUTUM
FECES-VACCINES
EFFUSIONS
STOMACH CONTENTS
PREGNANCY TEST
THROAT CULTURES
AGGLUTINATION TESTS
DARK FIELD—SPIROCHETA
BASAL METABOLISM
AUTOGENOUS VACCINES
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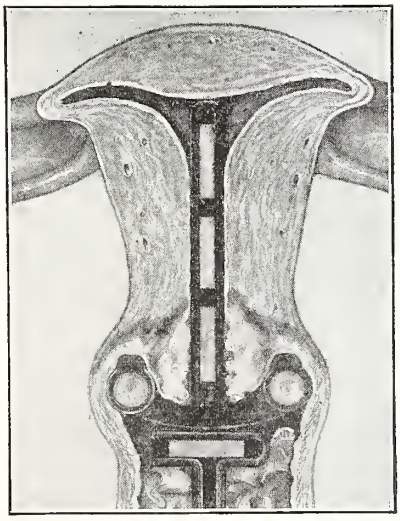
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relative to this therapy in pneumococcal infections. Dr. R. M. Meredith reported a case of polycythemia vera with findings observed in a case under his care for the past two years. Dr. J. B. Penrose and Dr. R. H. Sloan reported a recent case of agranulocytosis thought to be due to the use of pyramandom. The case also had a course of sulfanilamide. Blood findings were typical of agranulocytosis accompanied by angina. The patient recovered under the use of pentosenucleate plus the use of yellow bone marrow.

The Wagner Health Bill, S. 1620, was fully discussed and a resolution adopted protesting its passage. Copies of the resolution were sent to Senators Donahey and Taft and Representative Secrest.—David Sauer, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

HOCKING

Hocking County Medical Society has sent copies of a resolution protesting the passage of the Wagner Health Bill, S. 1620, to Senators Donahey and Taft and Congressman H. K. Claypool.

Members of the society were guests of the local bar association at a dinner party, Thursday evening, April 6, at Logan. Speakers were Carlos Brashares, attorney, and Dr. A. K. Smith, who told of some of his experiences during 50 years of practice in Logan.—News clipping.

LAWRENCE

Dr. Ralph F. Massie reported on the clinics he had recently attended in Indianapolis, at a meeting of the Lawrence County Medical Society, Tuesday night, April 11, at Ironton. There was also a round-table discussion of cancer.—News clipping.

SCIOTO

Dr. John W. Means, Columbus, spoke on "General Management of Billiary Diseases", at a meeting of The Hempstead Academy of Medicine of Scioto County, Monday evening, April 10, at Portsmouth General Hospital.—W. M. Singleton, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs during April:

April 3—"The Acute Anxiety Tension States", by Dr. George T. Harding; "A Discussion of Cases", by Dr. Harrison S. Evans.

April 17—"Acute Surgical Lesions of the Upper Abdomen", by Dr. W. D. Gatch, Dean,

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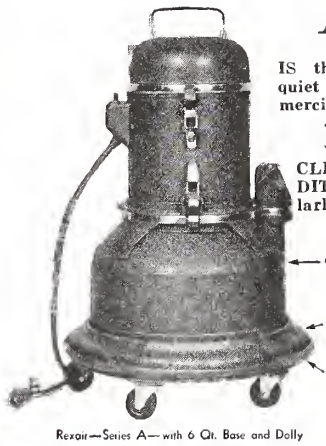
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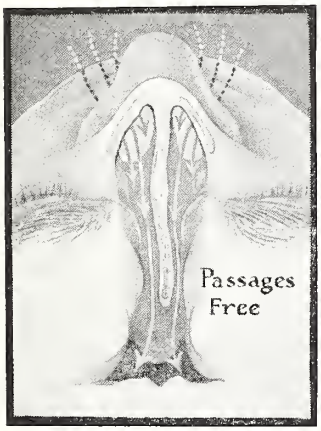




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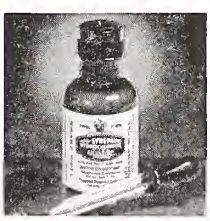
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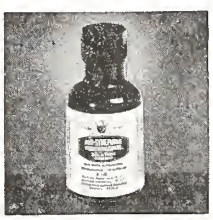
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Indiana University Medical School, Indianapolis, Ind.

April 24—Section in General Medicine. Meeting at Columbus State Hospital. "New Concepts in Treatment in Mental Cases", by Dr. E. F. Clouse; "Metrazol Treatment and Presentation of Cases", by hospital staff.—Bulletin.

MORROW

An interesting paper on "Modern Obstetrics" was read by Dr. Karl H. Feistkorn, Marion, at a meeting of the Morrow County Medical Society, Tuesday evening, April 11, at the Globe Hotel, Mt. Gilead.—T. Caris, M.D., secretary.

UNION

At a meeting of the Union County Medical Society, Tuesday night, April 11, at Marysville, Dr. Hans Spiro, Sunbury, gave an unusually interesting talk on "The Practice of Medicine in Germany". Dr. Spiro formerly practiced in Germany, but has been in this country for several years.

Members of the society were requested to write personal letters to Senators Donahey and Taft protesting the passage of the Wagner National Health Bill.—Fred Callaway, M.D., president.

First Councilor District Meeting

The annual meeting of the First Councilor District of the Ohio State Medical Association was held in the Medical College Auditorium, Cincinnati, Thursday, March 23. The following papers were presented: "The Present Status of Sulfanilamide", by Dr. Stanley Dorst, associate professor of medicine, University of Cincinnati College of Medicine; "Deficiency Diseases as Seen in Office Practice", by Dr. Marion A. Blankenhorn; "Investigation Work on Male Hormones", by Dr. William E. Lower, director, Cleveland Clinic Foundation; "Gastric Carcinoma", by Dr. Carl H. Lenhart, professor of surgery, Western Reserve University School of Medicine. There were approximately 65 physicians present at the afternoon session and about 50 in the evening. Dr. Parke G. Smith, Cincinnati, President-Elect of the Ohio State Medical Association and Dr. L. Howard Schriver, First District Councilor, spoke briefly on organization matters during a business session following dinner. The program was arranged by a committee consisting of Dr. Lloyd B. Johnston, Cincinnati, chairman; Dr. Clifford Foor, Hillsboro; Dr. Hugh W. Chaney, Sugar Tree Ridge, and Dr. Walter A. Reese, Middletown.

Toledo—Dr. F. P. Osgood, Dr. W. A. Neill, Dr. H. L. Hauman, Dr. W. W. Beck, Dr. F. L. Eyestone, Dr. John Lukens and Dr. W. W. Stone attended the regional meeting of the American College of Surgeons held in Indianapolis recently.

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The Physician's Bookshelf

Marihuana. By Robert P. Walton. *Lippincott, Philadelphia,* $3.00. This book is a complete manual upon the subject of "America's new drug problem," by the professor of pharmacology of the University of Mississippi School of Medicine. Its history, its distribution throughout the world, the plant, methods of use, descriptions of hashish experiences, acute effects, chronic effects, therapeutic uses, its pharmacology, with a special chapter by Dr. F. R. Gomila of New Orleans . . . It is very informing to read that of the great many users of the drug in this country, "only a fraction of them have become chronic users of the drug and of this group a still smaller number have developed a true, uncomplicated addiction". The danger in its use seems to be that it contributes to juvenile delinquency, serves as an introduction to other drugs which do addict, notably cocaine, and conditions the petty criminal to truly desperate acts of violence.

The 1938 Year Book of General Medicine. *Year Book Publishers, Inc., Chicago.* $3.00. This book continues to be the best story of the continuous progress of medicine. There are definite improvements in paper and appearance.

Classic Descriptions of Disease. By Ralph H. Major, second edition. *Charles C. Thomas, Springfield, Ill.,* $5.50. This edition has increased the number of readings to 403 which, together with interesting summaries and brief historical and biographic sketches preceding each of ten subdivisions, put this book on the must list of every physician who makes any pretense at having a library.

Industrial Hygiene. A Handbook of Hygiene and Toxicology for Engineers and Plant Managers. By L. B. Chenoweth, M.D., and W. Machle, M.D. *F. S. Crofts, New York,* $2.00. Both of these authors are introduced by Dean Herman Schneider of the College of Engineering and Commerce of the University of Cincinnati, where they have been for several years. This is an excellent college text book on the subject.

The New International Clinics. Vol. IV. New Series I. Editor, G. M. Piersol. December, 1938. This issue is not up to the usual standard of this series. An excellent article on the placenta drawn from 84,000 pathologic specimens is the best one in the book. *The Length of Life of Cardiac Cases* is based on only 15 histories. *The Review of the Adrenogenital and Cushing's Syndrome* contains a bibliography of 230 articles. The authors conclude that these diseases are the same, due to an overfunctioning of the adrenal cortical hormone and they include four case histories showing quite satisfactory response to a low sodium, high potassium diet, supplemented by X-ray therapy to the adrenal. This seems to be a very rational approach to the problem.—Robert C. Kirk, M.D.

The Pneumonias. By Hobart A. Reimann, M.D. *Saunders, Philadelphia,* $5.50. In this book the professor of medicine at Jefferson is inspired because of his belief that it is possible to prevent and cure pneumonia. His own large experience is set down concisely and effectively and the atypical pneumonias are given adequate consideration.

Woman's Almanac 1939. Edited by Antoinette Donnelly, Alice Archibald, and Florence Brobeck. *Oquaga Press, Inc., New York,* $1.00. The same interesting standards are maintained as in previous years. It includes much advice about reducing, diets, vitamins and other popular health topics.

Twenty-eight Years of Sterilization In California. By Paul Pepnoc and E. S. Gosney. A

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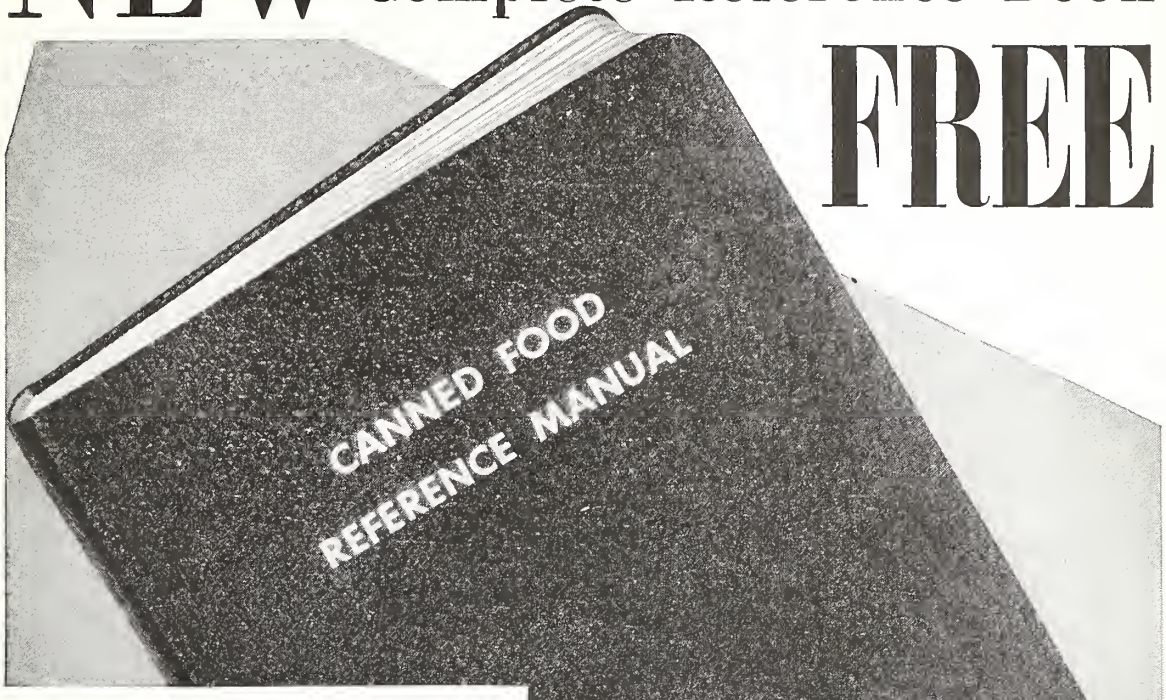
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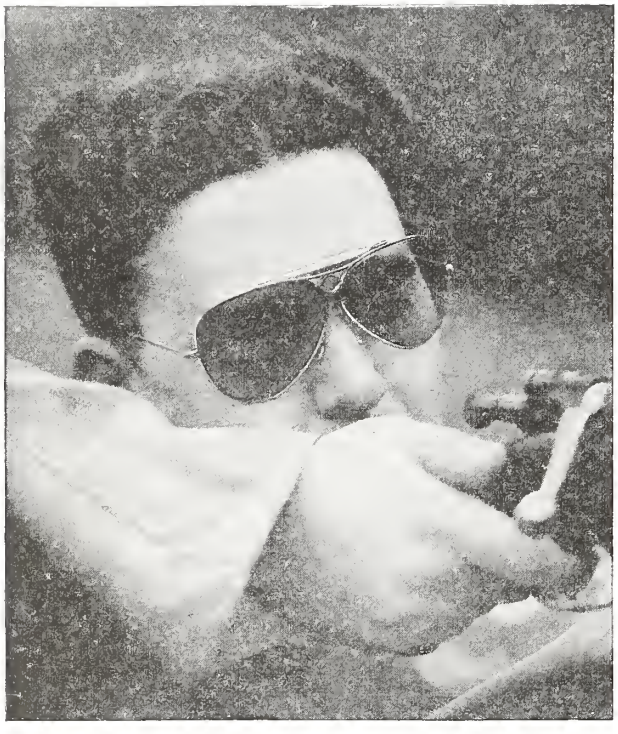
publication of the Human Betterment Foundation. Pasadena, 25 cents. This is a report on the results of sterilizing about 10,000 mentally-below-par in California, mostly inmates of state institutions. The striking result reported is that a number have been paroled to lead useful lives—not due to the operation but to the training received.

Teachable Moments. Jay. B. Nash, *A. S. Barnes, New York*, $1.50. Just why a rather excellent text on an approach to health by laymen for school people should insert propaganda for state medicine is not clear to your reviewer, especially when the results of universal health services which he eulogizes, from foreign countries do not have as good a record as does the blundering American way. The book contains much that is good. It preaches the return to the simple way; the avoidance of highly advertised and expensively packaged goods; the avoidance of expensive self-medication; and elimination of noise and other unnecessary stress and strain of modern life is urged throughout the book. It is an excellent presentation of the three simple rules of health i.e., Sleep, Rest, and Simple Foods. The author debunks most of the teaching of hygiene very nicely.

A Challenge to Sex-Censors. By Theodore Schroeder. Free Speech League, New York. Privately printed. The attorney for the League presents here an argument against sex-censorship that meets the heartiest approval of the reviewer, i.e., that it is impossible to invoke censorship which cannot be used to justify every other limitation which has been put on mental freedom.

Scarlet Fever. By George F. Dick, M.D., and Gladys Henry Dick, M.D. *Year Book Publishers, Chicago*, is an authoritative and complete monograph which should be in the library of many physicians for the most of the book is devoted to clinical aspects of the disease. The authors support their statements with extensive statistics. Plates in full color illustrate the whole subject perfectly.

Mental Disorders in Urban Areas. Robert E. L. Faris and H. Warren Dunham. *University of Chicago Press*, is an ecological study of schizophrenia and other psychoses. Among the facts brought out by these studies some are significant to us physicians in the study of the attacks that are now being made upon our profession. They found that cases of mental disorders, as plotted



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Body Menders. James Harpole. *Frederick Stokes, New York.* $2.75, is the dramatic recital of cases by the author of *Leaves From a Surgeon's Case-Book* which dispel the fear of disease and pain by teaching the newer developments in medicine and surgery.

Control of Conception. Robert Latou Dickinson, M.D. *Williams and Wilkins, Baltimore,* in its second edition is the authoritative manual which combines the scientific with the immediately practical.

The Synovial Membrane and the Synovial Fluid with special reference to arthritis and injury of the joints. David L. Kling, M.D. *Medical Press, Los Angeles,* sets forth fifteen years of the author's research. These tend to break down the misconception that these membranes are especially susceptible to infection and to teach what can be learned by aspiration.

How to Enjoy Ill Health. Cecilia L. Schulz, R.N. *Whittlesey House, New York,* a very witty book which covers the subject of its title admirably. At the same time, she manages to inject a lot of common sense and good advice to the patient.

Healthy Babies Are Happy Babies. Josephine Hemenway Kenyon, M.D. *Little Brown & Co., Boston.* An up-to-date handbook on the care, feeding, and training, both physical and mental, by one who has a wide experience in writing for one of the more popular woman's magazines. It makes an excellent adjunct to the work of a physician.

Dr. Norton's Wife. Mildred Walker, *Harcourt Brace, New York,* is the third novel by this author who, herself, is a doctor's wife. It is a study of what happens when the personality of the beloved wife of a physician disappears behind the slow and irreversible change of disease. The picture is complicated as it so often is in life by another woman brought because of the illness. The result is a clear picture of the domesticity of the relation between a man and a woman in a household, united by common concern and the familiarity built out of so many simple contacts of daily living.

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Buckeye News Notes

Ada—During the recent illness of Dr. Vernon A. Noble, Dr. F. M. Elliott substituted for him as Ohio Northern University staff physician.

Akron—The Doctor's Symphony Orchestra played its 76th concert recently at Peoples Hospital. Dr. A. S. McCormick is the conductor.

Alliance—Dr. Olin G. Wilson, Canton, and Dr. W. C. Manchester, Alliance, lead a discussion of "Medicine as a Career" before a group of high school seniors who visited Mt. Union College recently.

Ashland—"Venereal Diseases" was the subject of an address made by Dr. Reid P. Joyce recently at a meeting of the Hi-Y Club.

Attica—Dr. Chester A. Heimlich is the new health commissioner of Seneca County.

Celina—Officers of the new Mercer County Medical Milk Commission are Dr. L. M. Otis, president; Dr. John T. Gibbons, vice-president, and Dr. Ralph Beare, secretary.

Cincinnati—Dr. Henry M. Goodyear, assistant professor of otolaryngology, University of Cincinnati College of Medicine, delivered the foundation lecture in otolaryngology at the annual meeting of the Tennessee Academy of Ophthalmology and Otolaryngology at Jackson, Tenn., April 11.

Columbus—Dr. J. H. J. Upham, Dean of the Ohio State University College of Medicine, spoke on a recent Columbus Town Meeting of the Air broadcast concerning medical care and hospitalization of the needy.

Dayton—"The People's Fight Against Venereal Diseases" was the subject discussed by Dr. Walter M. Simpson at a recent meeting of the Mercator Club.

Defiance—Dr. John D. Westrick recently resigned as city health commissioner after nearly 35 year's service.

Findlay—Dr. Frank M. Wiseley was elected to fellowship in the American College of Physicians at the recent New Orleans meeting.

Fostoria—Dr. J. H. Norris recently celebrated the 62nd anniversary of his entrance into the practice of medicine.

Jerusalem—Dr. John D. Latta was seriously injured in an automobile accident recently near Racine, Wisconsin.

Logan—Dr. A. K. Smith has practitced medicine here for 50 years.

Madison—Dr. and Mrs. J. V. Winans celebrated their 51st wedding anniversary March 15.

Marion—Dr. Auguste Rhu observed his 90th birthday recently.

Massillon—Dr. E. B. Pierce spoke on "Tuberculosis" at a recent meeting of the P.-T. A.

McConnelsville—Dr. Edgar Northrup is in Chicago taking a special course in internal medicine at Cook County Hospital.

Newark—Dr. Paul C. Keller is the new city health commissioner, succeeding Dr. J. Fleek Miller, who resigned to devote his entire time to private practice.

New Philadelphia—Dr. C. M. Dougherty is the new president of the staff of Union Hospital. Other officers are Dr. D. W. Shumaker, Dover, vice-president, and Dr. John C. Blinn, New Philadelphia, secretary-treasurer.

Portsmouth—On April 1, Dr. J. W. Obrist celebrated his 50th anniversary as a physician. He has practiced 15 years in Beaver, Pike County and 35 years in Portsmouth.

Ravenna—Dr. P. L. Harris, Portage County health commissioner, spoke on "Syphillis" at a recent meeting of the Kiwanis Club.

Salem—Dr. and Mrs. Stanton Heck celebrated their 40th wedding anniversary and the 50th anniversary of his graduation from the Medical College of Ohio, Cincinnati.

Spencerville—Dr. J. R. Welch, who has been practicing medicine for 57 years, recently celebrated his 80th birthday.

Toledo—Members of the Toledo Academy of Medicine who attended the annual meeting of the American College of Physicians at New Orleans, March 27-31, were: Dr. A. A. Applebaum, Dr. H. F. Howe, Dr. F. C. Clifford, Dr. Paul Holmes, Dr. Howard Holmes, Dr. L. A. Levison, Dr. J. T. Murphy, Dr. C. L. McKibben and Dr. Theodore Zbinden.

Wauseon—A campaign for $30,000 is under way in Fulton County in behalf of Detwiler Memorial Hospital, which has accumulated an operating deficit of $20,000 in nine years, and anticipates an additional deficit of $6,000 this year.

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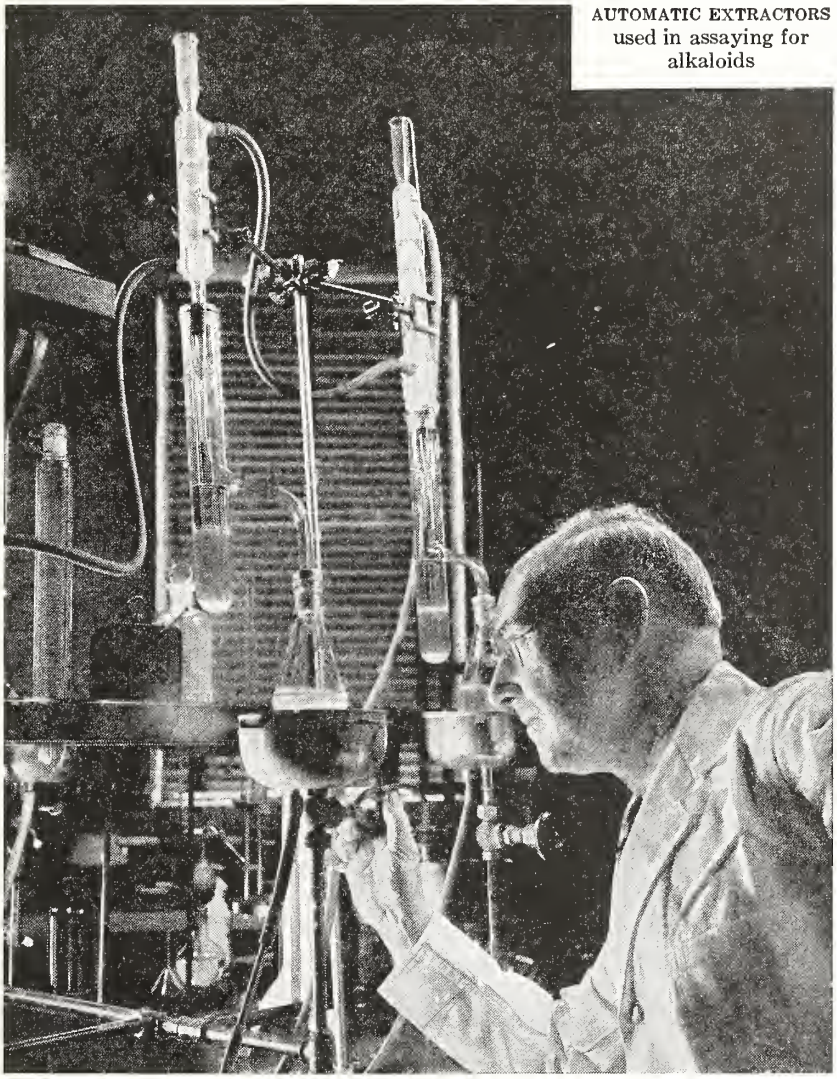
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Speak Against State Medicine

Among Ohio physicians who have recently made talks against the socialization of medicine are the following: Dr. George A. Woodhouse, Pleasant Hill, Piqua Round Table Club; Dr. Mark Millikin, Hamilton, Middletown Kiwanis Club; Dr. L. H. Trufant, Oberlin, Amherst Rotary Club; Dr. J. W. Schoolnic, East Liverpool, Parent-Teachers' Association; Dr. Milton J. Cohen, Cleveland, Lorain Civic Forum; Dr. Ralph M. Watkins, Cleveland, Ohio Chapter of Pro-America; Dr. Wm. M. Skipp, Youngstown, Alliance Rotary Club; Dr. R. S. Friedley, Akron, Kiwanis Club, and Dr. Lucy Stone Hertzog, Chardon, Loudonville City Federation; Dr. Howard W. Brettell, Brilliant, Ohio State Nurses' Association, District Meeting, Steubenville.

Asthma "Cure" Firm's Bill Beaten

A bill, H. R. 5379, which would have relieved "Tucker's Asthma Specific", produced at Mt. Gilead, Ohio, from certain of the labeling requirements of the Federal Food, Drug and Cosmetic Act, was defeated in the U. S. House of Representatives, April 20, by a vote of 234-118. The bill proposed that any "drug dispensed by a physician for the treatment of asthma and hay fever where such drug shall have been exclusively dispensed by physicians for at least 10 years prior to June 25, 1939" would not come under the provisions of the act, which requires that such medicines must either be a patent medicine and carry its ingredients on the label or it must be personally prescribed by a physician and cannot be sold through the mails.

Ohio Health Officials To Meet

The annual convention of the Ohio Federation of Public Health Officials will be held at the Deshler-Wallick Hotel, Columbus, Friday, May 19. Sectional meetings have been planned for the morning session, with a general session in the afternoon. Proposed amendments to the constitution will be considered, and new officers elected. The present officers are: Dr. R. H. Markwith, Columbus, President; Dr. H. H. Pansing, Dayton, vice-president, and Dr. W. D. Bishop, Greenville, secretary-treasurer.

New York Academy Fortnight

The Twelfth Graduate Fortnight of The New York Academy of Medicine will be held October 23-November 3. The subject of this year's course is "The Endocrine Glands and Their Disorders." A complete program and registration blank can be obtained by addressing Dr. Mahlon Ashford, The New York Academy of Medicine, 2 East 103rd Street, New York City.

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Ruling on Anti-rabic Treatments

On March 27, Attorney General Thomas J. Herbert ruled (Opinion No. 361), that county commissioners have no authority to pay a claim for medical expenses incurred in the taking of precautionary medical treatments by individuals who have assisted and taken care of a person bitten or injured by a dog afflicted with rabies. Under Sections 5851 and 5852 of the General Code county commissioners are required to pay for the medical or surgical treatment, not exceeding $200, of a person bitten or injured by a dog, cat or other animal afflicted with rabies.

Obstetrics and Gynecology Congress

The first American Congress on Obstetrics and Gynecology sponsored by the American Committee on Maternal Welfare, Inc., will be held at Cleveland, September 11-15. Physicians, nurses, hospital administrators and public health workers will meet and discuss their mutual problems and attempt to correlate their ideas. Dr. Walter W. Brand, Toledo, is state chairman for the congress. Dr. Fred L. Adair is general chairman, with headquarters in The Annex, 650 Rush St., Chicago, Ill.

Ohioans on Heart Society Program

The Fifteenth Scientific Session of the American Heart Association will be held at the Hotel Jefferson, St. Louis, May 12-13. The General Cardiac program was arranged by a committee consisting of Dr. Roy W. Scott, Cleveland, chairman; Dr. William H. Bunn, Youngstown, and Dr. Curtis F. Garvin, Cleveland. Dr. Harry A. Goldblatt will deliver the Lewis A. Conner Lecture. Ohio physicians participating in the program of the Section for the Study of Peripheral Circulation are: Dr. Louis G. Herrmann, Cincinnati, and Dr. Samuel H. Sedwitz, Youngstown.

Cleveland Wins Health Award

Cleveland has been awarded first place, for cities of over 500,000 population, in the 1938 City Health Conservation Contest of the Chamber of Commerce of the United States in cooperation with the American Public Health Association. Cincinnati was given an award of merit in Group II, cities of 250,000 to 500,000.

Awards are made not necessarily to the healthiest communities, but rather on the effectiveness with which a community is meeting its health problems.

Xenia—Dr. Marshall M. Best recently addressed Dayton police at their weekly training school on "Tests for Intoxication".

Youngstown—Dr. Claude S. Norris spoke on "Venereal Diseases" at a meeting of the Sebring Rotary Club.

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CHARLES S. NELSON, *Managing Editor* ALICE B. HANEY, *Advertising Manager*

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A Practical Approach to the Diagnosis and Treatment of Diseases of the Gall-Bladder

AUGUSTUS A. HALL, M.D.

WITH the productive increase of knowledge coming from many workers in the field of biliary tract physiology—notably Ivy[1]—the last decade has seen a change of mind in relation to the gall-bladder as a vestigial organ. When a gall-bladder that concentrates is removed, physiologic and anatomic changes result in the biliary tract. It has been reported by Rost[2] that the formation of bile and pancreatic secretion are lessened. Surgeons familiar with biliary tract surgery have come to realize the problems of underlying pathology in disease of the gall-bladder and to recognize the large percentage of cholecystectomies in those cases of cholecystitis without stone that have resultant morbidity. Alvarez[3] has emphasized this same thing.

Before going further let us emphasize that the treatment of disease of the gall-bladder is neither all medical nor all surgical. It will, for a long time, be divided into three groups—those cases that are strictly medical, those that are only surgical, and a third group that cannot at once be classified. The size of the third group will be dependent to a large extent on the ability of the diagnostician. The degree of success in those cases selected for medical treatment will depend upon how early the dysfunction has been detected. As Lyon[4] has so aptly stated—"Fair, fat, and forty, mother of children, suffering upper abdominal pain and belching gas not only means gallstones but also means late diagnosis". This classical text-book picture of gallstones means a gall-bladder that has been diseased for many years. It has also been pointed out by Kruse[5] and others that the pathologic process in cholecystitis is not limited to the gall-bladder but affects the entire biliary tract.

The Author

● Dr. Hall, Columbus, Ohio, is a graduate of Ohio State University College of Medicine; fellow, American College of Physicians; senior attending physician to Grant Hospital; visiting physician to Mt. Carmel and White Cross Hospitals.

DIAGNOSIS

There are five methods in the diagnosis of disease of the gall-bladder that must be correlated. They are a careful history, a thorough physical examination, laboratory tests, cholecystography, and biliary drainage. The last two procedures are complimentary with the exception of early disease of the biliary tract where biliary drainage gives the most information. In early disease of the gall-bladder the history is often confusing and vague, the physical examination negative, and the cholecystogram is reported as normal. An examination of the bile obtained by duodenal

Submitted January 31, 1939.

The following drugs mentioned in manuscript are not as yet accepted by The Council on Pharmacy and Chemistry, A.M.A.: bilron iron bile salts (Lilly), konsyl (Burton, Parsons & Co.), ketochol, trapsarol, and atabrine.

intubation will give to the trained observer the most data for a clear interpretation of what is going on in the biliary tract. Paval[6] is surprised that many careful workers who accept the specificity of the hepatic functions have endeavored to determine the hepatic origin of jaundice by examining the other functions of the liver and have neglected to investigate the biliary secretion. The elaboration of the technic and findings on biliary drainage have been thoroughly described by Lyon[7], the originator of non-surgical biliary drainage, and readers are referred to his classical treatise and also to Lyon's "Atlas on Biliary Drainage Microscopy". To give the reader a brief idea of the possibilities of diagnostic information it is customary to interpret excess mucus as indicating catarrh; an increase of pus cells means inflammation; an increase of bacteria indicates infection; an increase of biliary tract crystals indicates gallstones—potential or formed; and the finding of parasites indicates infestation. With careful technic and growing experience the observer grows more proficient in interpreting the bile in a given case. The findings must be checked against the other four procedures described above. To illustrate the importance of a combination of all five methods of examination the following case history is given:

History—Case No. 2444. L. M., a robust male of 53 years of age, came to me complaining of pressure headaches and dizziness. The present illness began about 10 years ago with a severe gastro-intestinal attack with nausea and vomiting of a bitter watery material. He was very dizzy and had pressure headache or "an expanding feeling" in the head. This attack was relieved with a laxative and bromo-seltzer. Similar attacks have occurred twice a year until the last two years when they have become more frequent. During the attack the urine loses its color and the stools become light. He also has been bothered with chronic spastic constipation; cramps in the leg at night; and drowsiness during the day. His past history was negative with the exception of three incidents. When he was 16 years of age he had typhoid fever with no complications. At 23 years of age he was advised to have his tonsils removed and, in administering the general anesthetic, over three ounces of chloroform were given. He was so deep in anesthesia that it required three hours for him to be resuscitated. The third incident was the persistence for years of a chronic post-nasal catarrh.

It is interesting to note that since the tonsil operation he has suffered from vague symptoms of indigestion—mostly in the epigastrium. Excess gas has been a prominent feature. He has also had pyrosis infrequently and has regurgitated acid material after the meal.

The physical examination was essentially negative with the exception of excess gas in the stomach and slight tenderness over the course of the colon—especially the descending part.

Procto-sigmoidoscopic examination was impossible during the first attempt because of the extreme spasticity—even with the aid of Soper's solution of equal parts of saturated magnesium and sodium sulfate. The patient was given antispastic medication and several days later the sigmoidoscope was passed. Nothing was found except a markedly spastic bowel and slight mucosal injection.

Laboratory examinations—The first fractional gastric analysis showed no free hydrochloric acid with a low total acidity and microscopic evidence of a sub-acid gastritis. Several days later the test was repeated with the aid of 0.2 mg. histamine phosphate and a low abortive curve was obtained.

The blood analysis was essentially normal, as was the examination of the urine. The blood sugar was 90 mg.; non-protein-nitrogen 29 mg.; urea nitrogen 13.5 mg.; uric acid 6.2 mg.; cholesterol 185 mg.; icterus index 4.0 mg.; the Van den Berg test was negative, the Wassermann and Kahn tests were also negative.

Roentgenographic study of the gastro-intestinal tract was essentially negative with the exception of showing a high atonic stomach with irregular sluggish peristalsis. Evidence of spasticity in the descending colon was found.

The first non-surgical bilary drainage revealed a large amount of mucus, some calcium bilirubinate, bile-stained bacterial colonies, and many degenerated duodenal epithelial cells. No bile was obtained prior to stimulation. "A" bile was recovered on stimulation, but little gall-bladder bile (20 cc.), and no liver or "C" bile. A second drainage one month later revealed an increase of gall-bladder bile but still no liver bile. The third drainage one month later showed a good flow of gall-bladder bile of blackish-brown color and a moderate amount of yellow-brown liver bile (125 cc.) No typhoid bacilli were recovered from the biliary tract. (In this case biliary drainage was used for diagnostic purposes and not for treatment.)

In the **treatment** of this case the patient was placed on a modified sub-acidity diet. He was given antispastic medication and placed on bilron, (Lilly) iron bile salts, and konsyl (concentrate of psyllium seed—Burton, Parsons and Co.) He was also given a digestant mixture including dilute hydrochloric acid. He has become symptom free.

COMMENT

Here is an example of the low-grade chronic invalid with gastro-intestinal symptomatology who tries first one remedy and then another to no avail. It seems clear that the overdose of chloroform was the start of a low-grade disturbance of the biliary tract that in turn secondarily caused the spastic constipation and the low-grade hepatic-intestinal toxemia. The constant irritation from post-nasal catarrh was a factor in the maintenance of the chronic gastro-duodenitis. Sometimes it is impossible to ascertain which appeared first, but in giving this type of case the benefit of a thorough survey it is possible to bring about a certain amount of order from the chaos that is usually referred to as "vague symptoms of indigestion".

DIAGNOSIS

In the diagnosis of early disease of the gall-bladder the physical examination and cholecystography are apt to be negative. It is important,

however, to make a thorough physical examination to prevent a not infrequent embarrassing mistake. One should not only pay close attention to the right upper quadrant of the abdomen but to other regions, including the other abdominal regions, the pelvis, vagina, rectum, and prostate.

Beginning pneumonia in the base, pleurisy, intercostal neuralgia or beginning herpes zoster on the right side may form a question during the early stages. Coronary artery disease and toxic myocardial disease may simulate gall-bladder disease and therefore the cardiovascular system should be carefully examined. Syphilis should be eliminated since a visceral crisis in cerebro-spinal lues may be coincidental with an active cholelithiasis. One should not be content with the finding of the first and presumably causative pathology in a patient and assume the case exists in pure text-book form. The chances are against this.

As stated before, in the early beginnings of disease of the gall-bladder, cholecystography is of little help. The reports will usually show good filling and emptying response to the dye. Bochus[8] demonstrated, in a study of 148 proved stone cases, that the cholecystogram demonstrated stones in 29.2 per cent while biliary drainage suggested the presence of stones in 83.2 per cent.

TREATMENT

When a physician is confronted with a case of gall-bladder disease he must make a decision as to whether it is medical, surgical, or indeterminate. I believe the following conditions are distinctly medical.

1. Biliary dyskinesia, or dysfunction of the sphincter of Oddi.
2. Simple catarrhal cholecystitis.
3. Obstruction of the cystic duct from catarrh with early cholecystitis.
4. Infectious cholecystitis, secondary to acute infections, such as typhoid fever.
5. The stoneless gall-bladder with chronic cholecystitis. (No adhesions or obstruction to flow of bile into the duodenum.)
6. All cases that are too great a surgical risk. (The percentage of medical success will be less in this group).
7. Infestation of the duodenum and biliary tract, such as giardiasis and typhoid carriers.
8. Hepatic-intestinal toxemias.

It is pretty well agreed that the following conditions are best treated by surgery:

1. Cholelithiasis.
2. The chronic thick-walled gall-bladder with deforming adhesions.
3. Malignancy of the gall-bladder.
4. Benign tumors of the gall-bladder.
5. Obstructions of the cystic or common bile duct by stone, adhesions, or tumor.
6. Cholesterosis of the gall-bladder.
7. Acute suppurative cholecystitis.
8. Empyema of the gall-bladder.

There will be, as stated before, a group between these two that will decrease in size as diagnostic ability increases.

The **medical management** of the biliary tract divides itself into two parts—prevention and treatment.

The **prevention** of a disease demands a knowledge of the underlying causes. At present it is fairly well agreed that at least seven factors are present in disease of the gall-bladder.

a. Catarrh of the biliary tract mucosa.
b. Parenchymal cell impairment.
c. Errors of cholesterol metabolism.
d. Infection.
e. Infestation.
f. Hormone variants.
g. Bile stasis.

With these factors in mind, patients should receive preventive medical advice to the effect that they should:

1. Eat three gall-bladder evacuant meals a day. (The chief food elements are the fats and meat.)
2. Avoid drugs that are known liver irritants, such as atophan, cincophen, the arsenicals, chloroform, carbon tetrachloride, and tetrachlorethane.
3. The control of hypercholesterolemia in pregnant women, following infections, and in certain chronic diseases. Rehfuss[9], Soper [10], and Twiss[14] have emphasized the important role of hypercholesterolemia.
4. Prevention of chronic upper respiratory infections, such as chronic post-nasal catarrh; and the immunization against typhoid fever.
5. The removal of all other chronic foci of infection.
6. The prevention of injury of the colon from chronic constipation with the resultant laxative, enema, or colonic irrigation habit.

In this selected group to be treated medically, one of the conditions that must be present is the absence of mechanical obstruction to the bile flow from the liver and gall-bladder to the duodenum. In the acute case of cholecystitis sedation is the physiologic indication. Rest in bed, heat to the upper right quadrant, and morphine are standard treatment. Gastric lavage is of real benefit because of the relief from pressure against the gall-bladder of a heavy stomach. The diet should be limited to liquids and, if this is not tolerated by mouth, rectal nutrient enemata should be given.

Duodenal drainage every other day should be done until the acute stage is past. No serious embarrassment during the first few days has been observed from this procedure. The liver should be made to excrete more bile, thus flushing the liver cells and bile ducts. This can be accomplished by the administration of one of the bile acid preparations on the market—such as decholin, bilron, or ketochol. For purposes of disinfection large doses of sodium salicylate and urotropin are useful. Autogenous vaccine should be made from cultures obtained from the gall-bladder bile. The administration of vaccine is begun after the acute stage has passed. The drainages are also spaced further apart. The diet

is now fortified with gall-bladder evacuant foods —usually beginning with the addition of butter and very gradually adding the other fats depending on the patient's tolerance.

In gall-bladder stasis, often the result of meal skipping and fad diets, the use of a diet that rests the biliary tract one day and works it the next is of benefit. This is accomplished by keeping the rest day diet free from gall-bladder evacuant foods—chiefly the fats and meat, and making the work day diet rich in these foods. Duodenal biliary drainage should be given bi-weekly for four to ten weeks—depending on the individual case—and then at gradually increasing intervals as indicated by the symptomatology and drainage findings. Anti-spastic medication and choleretics should be given. As the case improves, the work days may be increased at the expense of the rest days. One should be careful to keep the total caloric content at such a level as to prevent obesity. This is especially true in cases of hypothyroidism and hypo-ovarism.

In the poor surgical risk patient with little or no gall-bladder emptying the low fat cholesterol diet will reduce the mucosal irritation with reduction of pain and reflex dyspepsia. This diet is also to be adhered to in cases with gallstones—especially with small stones that might be forced into the cystic duct by gall-bladder contractions.

PARASITES

Various parasitic organisms have been found in the gall-bladder, some of which are echinococcus cysticus, ascaris lumbricoides, endamoeba histolytica and giardia or lamblia intestinalis.

The giardia is the commonest of these organisms found in the bile. It has been the subject of mild differences of opinion as to the amount of gastro-intestinal symptoms produced. In our experience, there has been evidence of low-grade cholecystitis, alternate diarrhea and constipation, disturbances of appetite, biliary dysfunction, and sometimes general prostration. Galli-Valerio[12] has had similar experience.

It is believed by many, that an infested gall-bladder is the seat of reinfestation of the intestinal tract. It is obvious, therefore, that in all cases of intestinal infestation, a duodeno-biliary drainage should be given to determine the presence or absence of the organisms in the gall-tract.

The duodenal tube is indispensable in the detection of parasites in the biliary tract. This was the diagnostic means that made it possible for Swalm[13] to discover his case of Clonorchis sinensis in a Chinaman.

In the treatment of giardiasis of the gall-tract, the chief procedure is biliary drainage—from an ordinary drainage to continuous drainage. In adults, the use of one of the arsenicals—especially treparsol and sulpharsphenamine—has proved successful. Galli-Valerio[12] highly recommends atabrine. Good results have been obtained in children by the use of bismuth salicylate gr. v. tid.—as recommended by Zahorsky of St. Louis.

CONCLUSIONS

1. The gall-bladder can no longer be regarded as a vestigial organ.

2. A correlation of knowledge from the five methods of examination of the gall-bladder is necessary in the diagnosis of disease of the gall-bladder.

3. In the detection of early disease of the biliary tract, non-surgical biliary drainage offers the most information.

4. There is a definite group of cases of disease of the gall-bladder that are only medical.

5. A brief outline of the prevention and treatment of disease of the gall-bladder is given.

6. The gall-bladder must be regarded as a possible focus of reinfestation of the gastro-intestinal tract.

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A porcupine quill was evacuated from the bladder during an irrigation. The University of California Biological Laboratory stated that it was not only a porcupine quill, but one from the tail of the beast, and submitted two quills to prove the assertion. The patient explained that while out for a walk with her dog, he had engaged in a battle with a porcupine, and in her endeavor to separate the animals, she had received several quills in her leg.—Albert M. Meads, Oakland, Calif.

Rupture of the Supraspinatus

HERBERT L. BRUMBAUGH, M.D.

THE purpose of this paper is to present a case history where diagnosis of rupture of the supraspinatus tendon was made within a few hours and surgical treatment instituted at the earliest opportune time. This, I am sure, has been done by others but an additional attempt is made here to outline a procedure for exploration that can be easily enlarged for adequate repair. If no repair is indicated the exploratory wound is closed and patient suffers no extended disability.

The writings and teachings of Codman have made an increasing number of our profession conscious of such a possibility in diagnosis of disability of the shoulder. Too often, however, these cases are referred to the surgeon after an initial course of "conservative treatment" has been followed. Sometimes they are referred by industrial boards or even the patients present themselves with the complaint that "my shoulder has never fully recovered".

The word conservative treatment is used oft-times synonymously with non-surgical treatment. To treat a rupture of the supraspinatus tendon by any other means than by surgical repair is a radical method. It would suggest an ability to state definitely the extent of the pathology in this area without actual inspection. In the case report that follows a small rent was anticipated, the extent of which was remarkable on exploration.

For a long time it has been recognized that the loss of any particular function of the shoulder is usually compensated by an adjacent anatomical

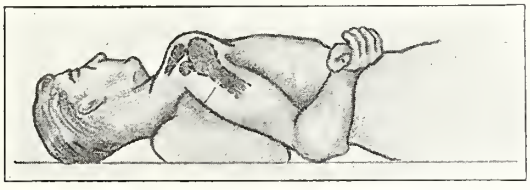


Fig. 1. Patient in position on table for exploratory incision. Sand-bag under shoulder. Extremity abducted, extended and externally rotated.

structure. Nevertheless, a shoulder with some low-grade chronic pain and some loss of function is not a happy result either from the standpoint of the patient or of the surgeon.

Excellent case reports by Davis & Sullivan, Outland & Shepherd, and Wilson have been presented in the literature. These describe well the anatomy, etiology, diagnosis and treatment. Most of these cases were seen in the later stages of the disability. In fact, one author is led to remark that "one never sees these patients early".

Submitted March 8, 1939.

The Author

● Dr. Brumbaugh, Dayton, Ohio, is a graduate of University of Michigan Medical School, 1929; fellow of the American Board of Orthopaedic Surgery; member American Academy of Orthopaedic Surgeons; orthopaedic surgeon to Miami Valley Hospital, Dayton, Ohio.

TECHNIQUE

Where the diagnosis of rupture of the supraspinatus tendon is considered, the following pro-

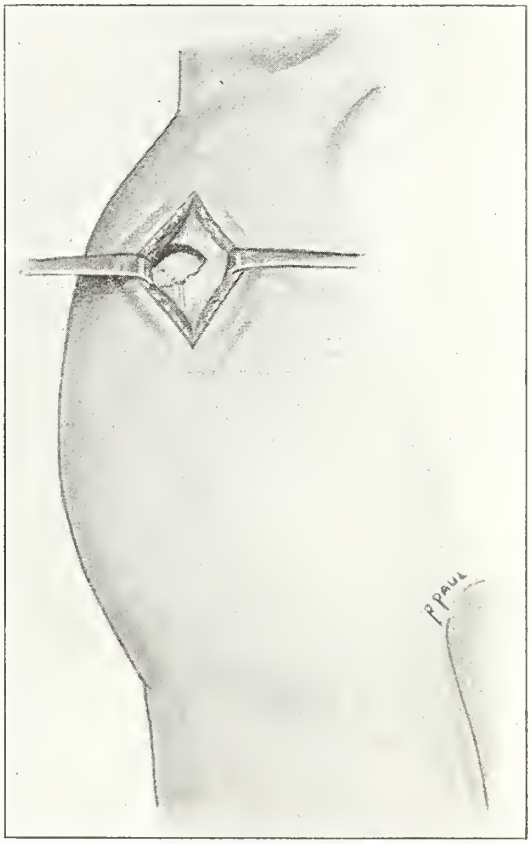


Fig. 2. Exploratory incision begins midway between corocoid and mid-acromium extending distally 1" to 1½" through fibers of deltoid. With rotation of extremity, complete inspection is usually possible.

cedure may be followed: Under local anesthesia, with the patient in a position as in Figure 1, the upper fibers of the deltoid are separated. If no

tear is encountered, a traumatic bursitis can be treated by novocaine or saline irrigation. Splitting the fibers of the spinatii tendons, if there is redness or any other evidence of caseous exudate in these tendons, oftimes gives marked symptomatic relief. The wound is closed and active use begun in two or three days.

If a tear is encountered, the incision can be

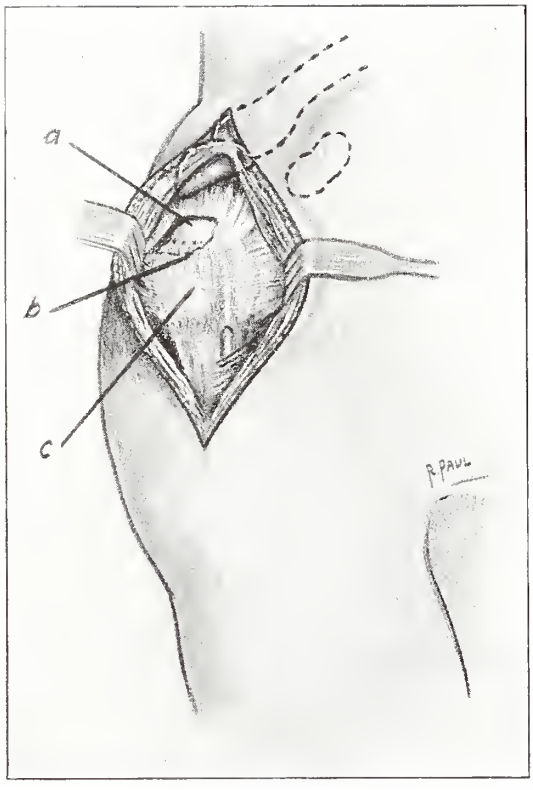


Fig. 3. Exploratory incision opened distally. The position of axillary nerve should be noted. The incision can be carried proximally over the acromium allowing greater retraction. The acromium may be divided if considerable retraction has taken place; (a) articular cartilage head of humerus; (b) tendonous cuff is still attached to tub rosities; (c) greater tuberosity.

enlarged as in Figure 2. This can best be done under gas-oxygen anesthesia. To do this procedure, following an early diagnosis will, in many cases, resolve itself into a tendon repair as in Figure 3. At this stage, the endonous cuff attached to the tuberosity may still be present and certainly the retraction of the tendons will not be marked. When retraction is marked, the acromion can be divided by a gigli-saw thus giving sufficient exposure for a fascial repair. With tendon suture, active motion can be started, with the arm at the side, within one week. Fascial repair will require immobilization for three to four weeks and for this length of time an abduction splint should be used.

CASE HISTORY

M. V. T., age 56; female; on March 3, 1938, fell on sidewalk striking her buttocks and low back. At the particular time, she was reading a letter. Both shoulders and both elbows were in a degree of flexion usually associated with that particular activity. There was no direct force to the shoulder region; there was no immediate pain. On arising, it became very obvious to the patient that abduction could not be initiated in the right shoulder. Flexion and extension in this articulation was entirely normal. There was some pain that night when the patient attempted to rest on this side. However, no sedatives were necessary. The patient was examined within several hours.

Examination: The patient was a well-developed, slightly obese, middle-aged woman. For many years, she had been employed as a telephone operator. This occupation calls for a particular dexterity and coordination of the functions of the shoulder. The general examination was negative. The right shoulder presented one very obvious objective finding, namely, abduction could not be initiated. If this extremity was passively abducted to 45°, further active abduction was possible but moderately painful. Flexion and extension were free and painless. There was no swelling, no discoloration, no generalized or localized tenderness. No tender points, sulcus or soft crepitus could be demonstrated in or about

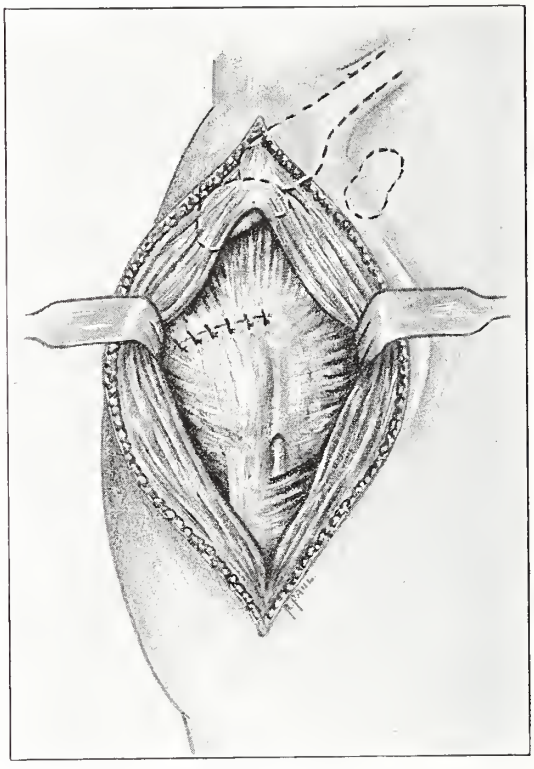


Fig. 4. Rent repaired with interrupted black silk. Several mattress sutures may be used.

the greater tuberosity, the region of the supraspinatus insertion. A diagnosis of complete rupture of the supraspinatus tendon was made.

Forty-eight hours later, under gas-oxygen anesthesia, an exploratory incision, separating the fibers of the upper deltoid, was made. (The patient preferred that no local anesthetic be

used). A roughly triangular rent was observed in the conjoined tendon of the supra and infra spinatus. There was approximately 1.5 cms. of tendon tissue attached to the tuberosity. The proximal portion was retracted about the same distance. The tendon tissue was slightly yellowish in color. With the arm in abduction and some internal rotation, the rent was closed with interrupted black silk sutures, the wound was



Fig. 5. Hyperabduction without pain in three months. The scar should be of little consequence if care is taken in wound closure.

closed in layers and the patient's arm was tied in hyperabduction for 72 hours. After this time, it was gently lowered to the side and placed in a sling. Active shoulder exercises without abduction were instituted at the end of one week. The latter was instituted at the end of three weeks. In four months, the patient had full function of the shoulder with no subjective symptoms. At six months, she stated "the shoulder is as good as ever."

COMMENT

Four other cases of rupture of the supraspinatus have been repaired by the author. In each, the diagnosis was not made until at least six weeks after the onset of the disability. In each of these four cases, there was marked retraction of the proximal portion of the tendon and the greater tuberosity was bare of the tendonous tissue. Two were repaired by fascial suture and two were repaired by braided-silk suture each being inserted under a small portion of bone in the manner as described by Wilson. The results of the repair in the late cases could not be considered excellent. There remained a slight amount of pain on hyper-abduction.

CONCLUSION

(1) In any disability of the shoulder in which active abduction can not be initiated, a diagnosis of rupture of the supraspinatus tendon must be entertained.

(2) The early repair simplifies the surgical procedure as there will be less retraction of tendon tissue. The possibility of restoring this shoulder to full function without pain is greatly enhanced.

(3) To think of this syndrome will ofttimes call attention to the proper diagnosis. Thus by repeatedly calling attention to this condition, the proper diagnosis of rupture of the supraspinatus will be made and a useless diagnosis of "neuritis", "rheumatism" and "arthritis" will be more properly investigated.

640 FIDELITY BUILDING.

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Maxillary Sinusitis of Oral Origin

Until in recent years, practically all of these cases were treated by the dentist. It is not uncommon to have a patient state that he or she had a certain tooth pulled by a dentist to drain and irrigate an infected sinus. Then, too, we find cases where inadvertently the antrum is broken into during extraction, where a root pit is dislodged into an antrum during the effort made at removing it, or where there is a post-extraction infection. My experience has been that these cases have too frequently been handled by the dentist according to the accepted methods of treatment as taught by dentists in years gone by. They do not always know how to drain an antrum, when an opening into an antrum should be kept open or when closed, and, indeed, some do not understand how to get a root or tooth out of a sinus after it has been accidently forced into the sinus. I have taken advantage of every opportunity to discuss this problem with the dentists of my territory and in recent years I am treating more of these cases, and the dentists are referring more to the otolaryngologists and treating fewer of them themselves.—P. W. Malone, M.D., Big Spring, Texas. Texas State Jour. of Med., Vol. XXXIV, No. 11, March, 1939.

Belief begins where science leaves off and ends where science begins.—Virchow.

Infections in the Urinary Tract in Children

CHARLES C. HIGGINS, M.D.

PRIOR to 1926 a paucity of publications concerning urologic conditions in children were available in the literature. With the advent of intravenous urography and the development of miniature cystoscopes, however, advances in diagnosis were made and as Campbell[1] has recently stated, "It is now recognized that children may suffer with practically every form of urologic disease known to exist in adults."

As it is essential to recognize any accessory cause of persistent urinary infection which may require operative intervention or instrumental manipulation in either children or adults, a complete urological investigation should be performed when an infection does not subside readily following medication. In children the frequent occurrence of congenital lesions which are conducive to the production of stasis and thereby cause a persistence of pyuria has been well illustrated in recent years by utilization of the means now available for urologic study. Congenital obstructive lesions, infravesical in type or involving the ureters, can be detected only by urologic study and should be recognized before irreparable damage to the kidneys has occurred. Thus it is essential that, if pyuria continues after adequate medical treatment has been instituted, complete investigation of the urinary tract should be carried out.

Even with the employment of intravenous urography, it is at times impossible to derive sufficient information to warrant drawing definite conclusions as to whether or not coexisting pathological conditions are responsible for the persistence of pyuria. Therefore it is necessary that cystoscopy be employed if visualization of the kidneys sufficient to allow unequivocal interpretation is to be obtained. This is especially true when gas shadows obscure the kidneys, when renal function is poor, when specimens of urine from each kidney are required, and finally, in the investigation of lesions in the urethra and the bladder.

Urinary infections occur with the greatest frequency during the early years of life, particularly during the first two years. Since the infection subsides spontaneously in many instances, the actual condition may be overlooked or not suspected in infancy and only the more acute and pronounced infections are recognized.

Campbell[1] has reported the cases of 961 infants and children with acute and chronic urinary infections while Caulk[2], in 1929, stated that one in every forty admissions to the St. Louis Children's Hospital was because of infection in the urinary tract. Furthermore, Campbell[1] found 331 infants and children were admitted to the Babies Hospital in New York for urinary infection between the years 1913 and 1933 which accounted for 0.8 percent of a total of 47,265 admissions. It is thus evident that infection of the urinary tract in infants and children is of relatively frequent occurrence. It has long been recognized that urinary infection is more common in girls than boys during infancy and early childhood. Thomson[3] after a study of 224 children under two years of age, stated that 21.8 percent occurred in male children. The higher incidence in girls was due to so-called "diaper infections", direct contamination of the short urethra occurring with subsequent ascending infection of the bladder.

As in adults, obstruction and stasis are the most important predisposing factors associated with urinary tract infections. When the obstructive lesion is infravesical in character, as may occur with congenital valves of the urethra, stricture, or hypertrophy of the verumontanum, an increase in the infravesical pressure occurs which, being transmitted to the upper urinary tracts, is followed by dilatation, elongation, and tortuosity of the ureters and hydronephrosis. Infection ensues and the child dies of uremia and urosepsis. Early recognition of these congenital lesions and surgical treatment with removal of the obstruction suffice to prevent this tragedy.

OBSTRUCTION OF URETER

In young children, if the obstructive lesion involves the ureter, it is usually unilateral in character. Strictures at the ureteropelvic or ureterovesical junction, fibrous bands, or obstruction of the ureters by aberrant or accessory vessels are the most frequent causative factors. Since the various lesions which are instrumental in the production of stasis may not be associated with pain, their presence can only be suspected when the patient does not respond to urinary antiseptics,

The Author

● Dr. Higgins, Cleveland, Ohio, is a graduate of Washington University School of Medicine, 1921; member American Association of Genito-Urinary Surgeons; American Urological Association; Clinical Society of Genito-Urinary Surgeons; American College of Surgeons.

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and they can only be corrected by instrumental manipulations or surgical treatment.

The chemotherapeutic agent to be utilized is influenced by the organism isolated from a specimen of urine secured by catheterization. Not only is it essential to secure a culture of the urine but a gram stain of the urinary sediment should be made. B. coli is the organism most frequently isolated from the urine. It is stated by some investigators, however, that the primary infection may be due to the staphylococcus, while later in the course of the disease a mixed infection of B. coli and staphylococcus is evident, or even a pure culture of B. coli is obtained.

ROUTES OF INFECTION

While numerous routes have been described by which the organism reaches the kidneys, I believe the ascending urogenous and hematogenous routes predominate, although it is true in some instances that evidence is elicited that the kidney is involved by ascent of the organisms through the lymphatics along the ureter. Some controversy still exists, however, as to whether this actually occurs. When we speak of the infection reaching the kidneys by the hematogenous route, we infer that a focus of infection is present from which the organism extends. The most frequent sites of focal infection in children are the upper respiratory tract, the gastro-intestinal tract, skin lesions as furuncles or paronychiae, or systemic disease as scarlet fever, measles, or typhoid fever.

Caulk[2], in a study of 483 cases of acute urinary infections in children, stated that foci of infection were found in the following order of frequency: otitis media, pneumonia, tonsillitis, and gastro-intestinal diseases. The organisms most frequently associated with hematogenous infections are initially the gram positive cocci and the infection usually involves both kidneys.

Urogenous infection, i.e., ascending infection to the kidneys from the bladder, frequently occurs when an obstructive lesion is present at the vesical neck or urethra. The infection may occur by either reflux or regurgitation up the ureter. Obstruction does not necessarily have to be present, however, to promote ascending infection.

Helmholz[4] and Wilson and Schloss[5] have clearly demonstrated that the lesion in so-called pyelitis in children is usually a diffuse interstitial suppurative nephritis. When the infection is ascending in type, the inflammatory process does not long remain confined to the pelvis of the kidney, but in a short period of time the parenchyma of the kidney is also involved. In like manner, if the primary lesion in the parenchyma is caused by a hematogenous infection, the pelvis of the kidney is soon involved. The degree of damage to the parenchyma of the kidney is influenced by the virulency of the organism and by the local resistance encountered.

Since other pathological lesions of the urinary tract frequently may simulate so-called "pyelitis", response to adequate medical therapy is too often relied upon to establish a diagnosis in the absence of urologic investigation. Without such study this is fraught with danger and may be responsible for the sacrifice of a kidney. If improvement does not follow medical treatment, the condition may be due to an infected hydronephrosis caused by ureteral obstruction, cystitis due to infravesical obstruction, pyonephrosis, renal carbuncle, perinephritic abscess, or other pathology in the urinary tract. In the majority of cases of so-called pyelitis, the child is free from symptoms in a period of 10 to 14 days although pyuria may be present for two or three weeks. If after this time pyuria still exists, cystoscopic study is advisable to ascertain the factors responsible for its persistence. When the cultures continue to be positive, as a general rule a congenital anomaly associated with obstruction and stasis will be detected.

MEDICAL MANAGEMENT

In the medical treatment of infants and young children with acute renal infection, it is essential that the nutrition of the child be maintained. Dehydration is frequently present and can be corrected by forcing fluids or the intravenous administration of glucose. Obviously, the child should be confined to bed. Because the child may have acidosis, a study of the blood urea and carbon dioxide combining power is advisable. Potassium citrate and sodium bicarbonate are given to combat acidosis. The fluid intake must be maintained and adequate elimination from the bowels secured. Medication which may cause vomiting or acute disturbances of the gastro-intestinal tract should be avoided until the general condition of the child justifies it. Foci of infection should be removed when the acute phase of the disease has passed and the temperature has returned to normal. During the acute stage, relief of the bladder discomfort can usually be secured by alkalinization of the urine. When the acute stage of the infection has subsided, one of several chemotherapeutic agents may be prescribed.

Methenamine is still the drug employed by many to eradicate the infection. In order to be efficacious, sufficiently large doses must be prescribed. Ten grains a day for each year of life may be given. Thus, a child five years of age should receive 45 to 50 grains daily; more than 65 to 70 grains daily should be given with caution. When ammonium chloride is used as the acidifying agent, one-third of the dosage corresponding to methenamine is given. The drug is usually administered for a period of six to seven days and then a culture of the urine secured by catheterization is made. After a rest period of three to five days, a second course may be pre-

scribed for an additional six or seven days. In the absence of an obstruction, the infection is usually eradicated in 14 to 16 days as evidenced by a culture of the urine.

Recently, the use of ammonium mandelate has received favorable consideration. In order to be efficacious, precautions which are of extreme importance must be taken: (1) adequate dosage, (2) concentration of the drug in the urine of 0.5 to 1.0 percent, (3) restriction of fluids, (4) acidification of urine to a pH of 5.0 to 5.2.

The ammonium mandelate may be given to very young children in the form of a 10 percent elixir. The following dosage as suggested by Wheeler[6] is satisfactory:

Age	Total Fluid Intake	Ammonium Mandelate
Under 1 year	450 cc.	3 gm.
1-2 years	500 cc.	4 gm.
3-6 years	500 cc.	5 gm.
6-9 years	600 cc.	6 gm.
9-12 years	800 cc.	8 gm.

The acidity of the urine should be checked each day in order to be certain that the pH of the urine remains between 5.0 and 5.2. If the urine is not sufficiently acid, additional ammonium chloride may be prescribed. This routine may be used for two to two and one-half weeks, checking frequently for evidence of acidosis. As a general rule an uncomplicated infection will be eradicated entirely by this time.

Finally, if so desired, sulfanilamide may be prescribed. Again adequate dosage of the drug is essential. The amount to be used may be as follows:

Infants	5-10 grains daily
2-5 years	15 grains daily
5-10 years	15-20 grains daily
Over 15 years	20-25 grains daily

When sulfanilamide is prescribed, equal doses of sodium bicarbonate are given. Failure to eradicate the infection is due to intolerance of the drug, free sulfanilamide level in the blood not being sufficiently high, poor renal function, the presence of coexisting pathology or a drug resistant organism.

As stated previously, these three drugs must be used with caution. Acidosis develops more easily in children on this medication and careful check of the blood chemistry is essential.

CONCLUSIONS

1. Persistent pyuria in children demands complete urologic study.

2. Congenital anomalies which produce urinary obstruction and stasis must be considered in children who have infection of the urinary tract that does not respond to adequate medical care.

3. Complete urologic study by cystoscopy and intravenous urography may be employed in children as well as in adults.

4. Urinary antiseptics should be administered to children with caution and close observation is essential.

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Excretion of Sulfanilamide in Breast Milk

The effect of the presence of the sulfanilamide in the breast milk in the nursing infant is unknown. The usual therapeutic dose of sulfanilamide for an infant one month old or less is considered to be from 7 to 14 grains (0.45 to 0.91 gm.) daily. Since the average doses in a course of sulfanilamide therapy given to the lactating mother would result in an intake of sulfanilamide by the child fed on her breast milk of not much more than 1 grain (0.06 gm.) daily, little can be expected in the therapeutic line from administration of this drug to the child by this method.

On the other hand, the possibility of toxic manifestations resulting from the ingestion of this milk must be considered carefully. Toxic manifestations of the drug by adults have been known and studied for several years. In the main, these are mild and do not warrant discontinuing the use of the drug. Certain extremely serious toxic manifestations occur, however. Chief among these is the development in a number of cases of acute agranulocytic angina. Two factors appear to be of importance in the production of this blood dyscrasia: (1) the quantity of the drug administered, (2) the period of time over which the drug is given. Since many infections occurring in the puerperium are obstinate and respond slowly to treatment, mothers who are nursing their infants might receive sulfanilamide for a period of several weeks. We believe that danger to the infant may be present through this circumstance.—F. P. Foster, M.D., Proceedings of the Staff Meetings of Mayo Clinic, Vol. 14, No. 10, March 8, 1939.

Report of a Case of Sarcoma of the Gall-Bladder

E. J. OESTERLIN, M.D., AND L. H. MENDELSON, M.D.

IN the following, a sarcoma of the gall-bladder will be reported. Sarcoma of the gall-bladder is a very rare finding. There are about 30 cases reported in the world literature.

A few statistics may demonstrate the rare occurrence of sarcoma of the gall-bladder. Ragins, among 8,544 autopsies at the Cook County Hospital, found only 31 malignant tumors. There were 28 carcinomata, one melanoblastoma, and two sarcomata. Dalla Valle quoted after DeGaetani found among 23,665 autopsies 39 cases of epithelial tumor and three cases of sarcoma of the gall-bladder. Erdman operated on 525 gall-bladders within five years and found five carcinomata and one sarcoma. Bertoloni quoted after Buettner found among 27,731 autopsies in the Pathologic Institute in Milan, 365 carcinomata, but no sarcoma of the gall-bladder. The sarcomata of the gall-bladder are in general larger than the carcinomata. Parlavecchio reports a sarcoma the size of a big watermelon.

The diseased gall-bladder frequently contains necrotic masses (Dyrenforth, Karlmark, Landsteiner, Ragins, Hotes, Althabe) and calculi. By far the majority of the authors have found gallstones, e. g., Bayer, Buettner, Dryenforth, De Gaetani, Hotes, Karlmark, Landsteiner, Ragins and Romani, while Bianchi, Brunschwig and Parlavecchio report no stones.

One of the most interesting questions is the etiologic role of the stones. Are they a cause of cancer and sarcoma, or does the neoplasma develop first and the changed conditions in the gall-bladder lead later to cholelithiasis?

De Gaetani and most of the other authors speak for the etiologic role of the stones in carcinoma and sarcoma. De Gaetani stresses the fact that calculi are frequently in close contact with the tumor tissue. The clinical history also proves that the gallstones are the primary factor, because the symptoms of calculosis have been found long before any evidence of neoplasma was given. Donati quoted after De Gaestani reports two cases of carcinoma in gall-bladders where some years ago stones had been found.

The different authors give the coincidence between calculosis and carcinoma from 95 per cent to 73 per cent. If, on the other hand, the cancer provokes calculosis, we should expect that the secondary carcinoma also leads to calculosis. Studies in this direction do not confirm the correctness of this thought. We only find 15 per cent secondary cancers of the gall-bladder showing stones. This all speaks for the etiologic importance of the stones for the development of both sarcoma and carcinoma. Of course the interpretation always is possible that chronic inflammation may lead to both cholelithiasis and malignant neoplastic growth.

Submitted December 21, 1938.

The Authors

● Dr. Oesterlin, Marlboro, New Jersey, is a graduate of Vienna University, 1910; member American Society of Clinical Pathologists; assistant pathologist to State Hospital, Marlboro, New Jersey.

● Dr. Mendelson, Springfield, Ohio, is a graduate of Ohio State University College of Medicine, 1923.

The study of the sex in sarcoma of the gall-bladder confirms also the idea of a causal connection between cholelithiasis and sarcoma; 80.7 per cent of gall stones are found in women and 19.3 per cent in men (Statistics of Rovsing). In sarcoma of the gall-bladder Ragins found a ratio of 7 to 1 between men and women. In this way

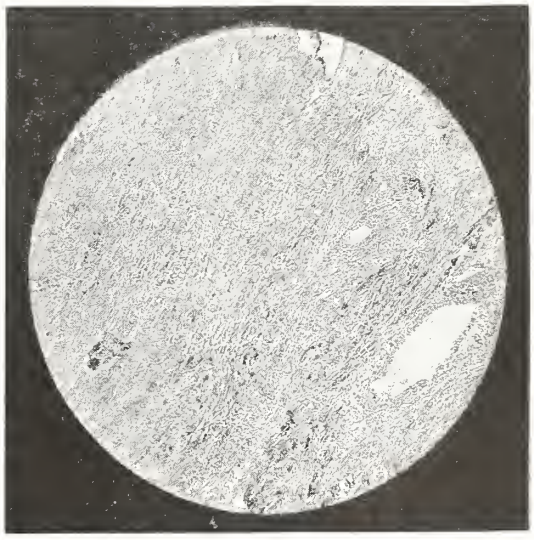


Fig. 1. Primary Sarcoma of Gall-bladder.

cholelithiasis and sarcoma go parallel, and it is hard to consider these figures as a mere coincidence.

As far as the histology of the sarcomata of the gall-bladder is concerned, the spindle cell sarcoma predominates by far. Dryenforth counts,

among 30 sarcomata of the gall-bladder, 20 spindle cell sarcomata, five polymorphous cell sarcomata, one angiosarcoma, one round cell sarcoma, and one myxochondroosteosarcoma.

Of special interest are those tumors in which the connective tissue of the gall-bladder is changed by a metaplasia into cartilage and bone tissue respectively. There are two cases: one reported by Bayer, in which numerous cartilage and bone islands were found; the other case has been described by Bianchi as oesteosarcoma.

Going over the literature, one has the impression that sarcoma of the gall-bladder metastasizes very readily, especially into the liver. (Bayer, Buettner, Gaetani, Hotes, Jeffé, Landsteiner and Ragins). Two of these authors report very extensive metastases. Hotes found them in the liver peritoneum, abdominal lymph



Fig. 2. Gall-bladder with Stones.

nodes and lungs; Ragins in liver, kidney, heart and lungs, in the lymph nodes ad hilum and in the peripancreatic lymph nodes, in the peritoneum, in the pulmonary veins, in the adrenals, and in the thyroid. If Dryenforth mentions among 30 cases 14 cases with metastasis, this figure is by far below the facts, because in many cases only a cholecystectomy or even a biopsy had been done, so that the authors were not able to rule out metastases. The cases of the sarcoma of the gall-bladder show about the same age as we find in carcinoma, while the average age of sarcoma in general is much lower than the cancer age.

Sarcoma of the gall-bladder, a very rare entity, has never been diagnosed to our knowledge preoperatively or ante-mortem. To the previously reported cases we add another case which was not recognized before death.

CASE REPORT

A white female, age 79, consulted one of us (L.H.M.) for jaundice, enlargement of the abdomen and "stomach trouble". Present illness dated back about two weeks and had a gradual onset. She first noticed that her skin was becoming "yellow" and that her appetite was poor. There was a full feeling in the upper abdomen aggravated by food, especially rich or highly seasoned in character.

Past history was essentially negative except for the fact that for many years she had had "stomach trouble" which necessitated the taking



Fig. 3. Sarcoma of Gall-bladder after Removal of Stones.

of soda or hot salt water. She denied ever having an attack which might have been taken as a gall stone colic. For ten years previous to present illness the symptoms complained of were not as marked because she stated that her religion (Seventh Day Adventist) which she then accepted prohibited eating meat of any kind. "Stomach trouble" was defined as gas, indigestion, bloating, eructations and a full feeling in the upper abdomen.

Family history was negative.

Physical examination revealed a fairly well nourished individual with a deep lemon yellow discoloration of the sclera and skin. Heart and lungs were negative. Blood pressure 132/68. The abdomen was enlarged, distended and tympanitic anteriorly and dull in the flanks. Fluid wave posi-



Fig. 4. Metastasis in Liver.

tive. No masses at this time were palpable, but deep pressure in the region of the gall-bladder elicited pain. Vaginal and rectal examination negative. After 3300 cc. of dark yellow fluid was removed from the abdominal cavity a large mass was felt in the region of the gall-bladder. A diagnosis of carcinoma of the gall-bladder

with stones or carcinoma of the head of the pancreas was made and the patient was treated expectantly until time of death. The blood findings were as follows:

RBC	3,100,000	
WBC	9,000	
Hb	63	Dare

Urinalysis:

Sp. Gr.	1.012	Bile pigment positive.
Color	Brown	
pH	5.0	Sugar and albumen negative

Stools:

Clay colored

The X-ray as reported by roentgenologist, Doctor Wm. Ultes, is as follows:

There is no evidence of the contrast dye in the gall-bladder. Double dose of the dye given. This

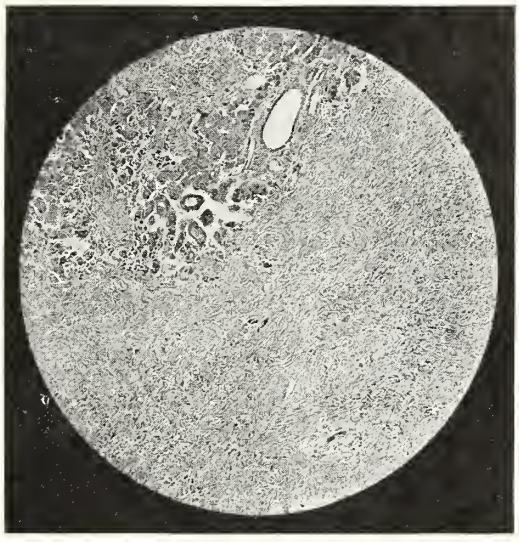


Fig. 5. Liver Metastasis.

would indicate some pathology of the gall-bladder or of the adjacent hepatic system. In addition to this, there is deformity of the pyloric end of the stomach and of the duodenum, no normal cap formation being apparent. The third portion of the duodenum is free, but there is fixation of the first and second portions. I feel that there is gall-bladder pathology present which would account for both the findings.

AUTOPSY FINDINGS

J. M. Autopsy performed by Doctor E. J. Oesterlin January 25, 1938, 9:00 A. M.

Female white body 170 Cms. long, age 79 years. Pupils wide, cornea already turbid. Skin and conjunctivae intensely icteric. Rigor mortis, livores.

1400 cc. of turbid, brownish fluid in peritoneal cavity. Multiple adhesions between stomach and duodenum on one side and the gall-bladder on the other side.

The common duct is wide and contains two stones, one the size of a bean and one the size of a lentil. There are some hard lymph nodes in the surroundings of the common duct.

Gall-bladder: The gall-bladder is much enlarged, the size of an orange, and contains 146 stones, varying in size from a large olive to a millet seed. One stone has a very irregular surface and is staghorn shaped. Besides the gall stones there is a large amount of friable necrotic tissue in the gall-bladder.

The wall of the gall-bladder is considerably thickened by a tumor mass which is tightly adherent to the liver. The tumor mass has extended into the liver, forming there a tumor node about the size of a large grapefruit. It extends upward in form of a node the size of a chestnut and reaches a point about three fingers below insertion of the diaphragm.

A large part of liver tissue is destroyed and many hemorrhages are found. Pseudo-cysts have been formed, surrounded by greyish-white tumor tissue.

Microscopic examination of the gall-bladder shows original tissue substituted by irregular spindle-shaped cells, going in all directions; some are very large with pyknotic nuclei and many mitotic figures. The cells vary much in size and shape; sometimes round-shaped cells are to be found. Occasionally incomplete cell division occurred, so that giant cells were found. The tumor breaks into the blood vessels, filling them with masses of spindle and round-shaped cells. There are only a few bundles of normal connective tissue left and the wall consists almost entirely of tumor cells. In many areas the tumor cells are entirely necrotic and only a cell detritus is left.

Diagnosis: Polymorphous spindle cell sarcoma of gall-bladder.

Liver: Liver enlarged—weight, 1,700 gms. The outside is smooth and of a light greenish

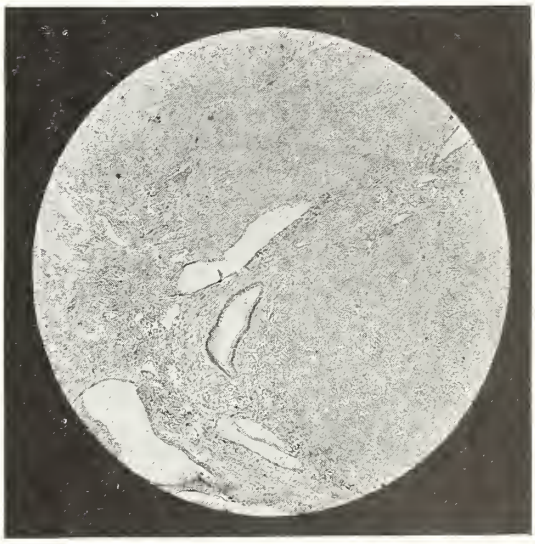


Fig. 6. Liver Metastasis with Isolated Bile Ducts in Sarcoma.

color. The structure is fairly distinct. Microscopic examination of the liver: In the area of the nodes the liver tissue is entirely destroyed and substituted by the same polymorphous spindle cells as described in the gall-bladder. Occasionally one finds groups of more or less damaged liver cells, which contain much bile pigment and some intact smaller and larger bile ducts.

The other post mortem findings are less impor-

tant. No metastases in lymph nodes, lung and kidney are found.

SUMMARY

1. A case of polymorphous spindle cell sarcoma combined with intense calculosis has been found in a woman 79 years of age.
2. The frequent findings of cholelithiasis in sarcoma of the gall-bladder as well as the predominance of sarcoma in women suggest an etiologic role of the gall stones.



Fig. 7. Sarcoma Metastasis in Liver. Inversion of Blood Vessels.

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Treatment of Dermatophytosis

Everyone is well aware of the fact that it is difficult to evaluate accurately the results of therapy in dermatophytosis, which even if left untreated runs a most capricous course of improvement, apparent cure, and relapse.

Regardless of the type of vaccine or the type of case, we believe the number of patients entirely uninfluenced by treatment remains high and approximately the same—in our experience over 60 per cent—and the number of cured or improved cases relatively low and, in fact, much lower than our figures indicated. We found that the longer we followed our patients, the smaller grew the number of cases we were able to report as "cured" or "improved."

We do not feel that vaccine, trichophytin, or convalescent serum treatment of dermatophytosis should be discarded. We feel rather that we should take stock of these agents. We feel that the biologic methods of treatment still belong in the laboratory and should not yet be advocated for general use. Some good results in a small number of cases have been reported, but the reasons for the small percentage of good results regardless of the methods of biologic treatment should be investigated. Perhaps the soil on which the fungi grow is altered by factors which we have not taken into account and which, if understood, might help us in controlling the disease. Certainly the general health of the patient is a factor. In one instance a long standing proved case of dermatophytosis was completely cleared up following a thyroidectomy. The patient has been observed for six to seven years since operation and the eruption has not recurred. Other such examples are not uncommon. Other methods of preparation of the vaccines and extracts must be considered too—and these methods tried out. The question of dosages must also be further studied. At the present time it is our belief that the usual local remedies, Whitfield's ointment, X-rays, boric acid ointment, wet dressings with boric acid, Burow's solution or potassium permanganate, et cetera, are still the most practical and useful agents at hand.—Eugene F. Traub, M.D. and Jesse A. Tolmach, M.D., New York; N. Y. State Jour. of Med., Vol. 39, No. 4, Feb. 15, 1939.

A man with a ureteral calculus had a ureteral catheter passed, left in place a short time, and, upon withdrawal, the ureter was lubricated with oil. The patient was told to report to the office in a week. He did, and while telling the doctor he had been without symptoms, he was voiding in three glasses. The patient's stone passed in the third glass and he has always believed that the doctor loaded the glass.—Sidney Olysen, San Francisco.

Preparation of Plant Oil Extracts for Diagnosis and Treatment

L. E. SEYLER, M.D.

IN the strict chemical terminology the causative material of plant dermatitis is not an oil but a resin or an oleo-resin.

The simplest and most reliable method of testing for contact skin sensitivity due to plants is to use the crushed green leaf or flower of the plant in question as the patch test material. Although this involves collecting the leaves either by the individual patient or his doctor for each test, some testing of this type for plants or shrubs or trees in the patient's environment is often advisable and necessary if the patient consults you during the growing season. Otherwise the causative plant may be missed, unless the patient has more than average knowledge of local botany, because he will be unable to name all possible plants to which he is exposed almost daily.

To avoid the time consuming collection of green leaves for each patient, stored dry leaves may be stocked for the routine tests. These are collected during the hottest part of the day and spread out on paper in a closed room to dry. After drying, they are crumbled and stored in wide mouthed bottles. In patch testing with this material a small pinch of the powdered leaves is placed on a small square of gauze, moistened, and fastened against the skin by an adhesive square of impervious material. These dried leaves retain their effectiveness for testing in this manner for two years when stored at room temperature in a dry place.

Either of the above methods is too time consuming to use for very many routines tests. The method suggested by J. H. Black of Dallas is best in our hands for routine tests. About two quarts of green leaves of each of the various weeds, shrubs, vines, and domestic plants of the locality thought to be the usual cause of contact dermatitis are collected. These are spread out to dry in a room where the air is not disturbed by drafts. After drying they are crumbled and placed in a pint Mason jar. The jar is then filled with ether, closed tightly and allowed to stand for several days. After standing the ether is poured off and allowed to evaporate. The resulting oily solution is placed in a small vial provided with a capillary tube on the upper end of which is a small rubber bulb. In some cases it is necessary to extract the material in the jar twice with ether to obtain a usable amount of material. If the oily extract is too thick it may be diluted with sweet almond oil. In using the extract the back is cleaned and a drop of material expelled on the skin and spread with the end of the capillary tube over an area one cm. in diameter. The extracts are placed on in rows and numbered with silver nitrate 10 per cent. After being allowed to dry no covering is necessary. They may be read in one to three days. The extracts prepared in this way keep for several years without deterioration.

The oil from pollens is prepared by evaporation of the ether used to wash pollen being prepared to provide material for subcutaneous treatments. The residue is diluted from two to four times with sweet almond oil and used in the capillary tubes as above described.

In preparing these oils for treatment, they are extracted from the dry leaves or dry pollen with ether. The ether is then allowed to evaporate after it has been mixed with the material for several days. If the evaporating dish has been weighed before using, the weight of the dish containing the residue will give by subtraction the weight of resinous residue obtained. This residue is then redissolved in nine parts of sweet almond oil using a little heat if necessary. It is then filtered through a seitz filter with strong suction and the filter bowel heated with a bunsen burner flame to aid filtration. The resulting 10 per cent solution can be diluted to the strengths desired for treatment with sweet almond oil that has been run through a seitz filter. The schedule used is as follows:

.05	1-5000	.10	1-1000	.05	1-200
.10	1-5000	.15	1-1000	.10	1-200
.15	1-5000	.20	1-1000	.15	1-200
.20	1-5000	.25	1-1000	.15	1-100
.25	1-5000			.20	1-100

If the patient is not markedly sensitive, you may begin with .05 1-1000. The treatments are

Read before the Mid-West Forum on Allergy, January 15, 1939, at Toledo, Ohio.

The Author

● Dr. Seyler, Dayton, Ohio, is a graduate of University of Pennsylvania, School of Medicine, 1931; member Ohio Valley Allergy Society; consulting allergist at St. Elizabeth Hospital, Dayton, Ohio.

given intramuscularly into the gluteus maximus. Always clean the skin about the needle puncture with ether to prevent a local eruption from oozing oil. The treatments are given weekly. While treatment must be used in some cases to obtain good results, removal of the causative plants from the evironment is by far the best method of obtaining results. The treatment should be given before the season and stopped when contact with the plant or pollen begins. Trying to treat during the season is the cause of most poor results. The pollenating plants do cause trouble as soon as they become green in the spring especially if they are crushed by the hands in the person's work or play.

Dusts from plants or any of their parts such as, grains, shredded corn fodder, and thresher dust, are causes of contact dermatitis. These dusts can be extracted with ether and their oils used in treatment as described above. House dust oil seems worth using in some cases of eczema in children and housewives.

The plants I have found most routinely responsible in Dayton are, ragweed, timothy and other grasses, tomato, dandelion, domestic ivy about the home or yard, shasta daisy, field corn, trumpet vine, cockle-bur, sunflower, primrose, begonia, geranium, and the Rhus family. In first testing for a new plant oil, one should also test two normal controls to make sure it is not a universal irritant. Treatment with universal irritants is seldom successful.

137 NORTH MAIN ST.

Phychoses in Children

Bowman, in a more recent study, utilized the interview method, interviewing relatives and friends of hospitalized adult patients to obtain a description of their early personality characteristics. Then he compared the results with those of a normal control group, and found that the pre-psychotic child, regardless of the type of psychosis he develops later, tends to be a model child, to have few friends, to indulge in solitary amusements, to be a follower, close-mouthed and uncommunicative, to bear pain less well than the normal, to be self-assertive, to have less initiative than the normal, and to be very ambitious. Comparing the pre-psychotic personalities of the group who became schizophrenic with the group who became manic-depressive, he showed that both groups have the same percentage of model children, which means that the very good child who never gets into mischief does not necessarily become schizoid or shut-in later when he breaks down, but may just as likely develop a manic-depressive type of psychosis.—Irene C. Sherman, M.D., Ph.D., Chicago; Ill. Med. Jour., Vol. 75, No. 5, May, 1939.

Renal Infections of Pregnancy and the Puerperium

The symptoms usually respond promptly to simple treatment including rest in bed, sedation, catharsis, and diuresis. The fluid intake should be at least 3000 c.c. daily. Dysuria is best treated by alkalinization of the urine. The acutely inflamed kidney should not be subjected to the irritating effects of urotropin, mandelic acid, and similar drugs. Sulfanilamide is a potent bacteriostatic agent, but it remains to be proved that its effects are harmless to the child, as has been claimed. M. Kenny, F. D. Johnson, T. von Haebler, and A. A. Miles (1937) found that from 7 to 9 grams of the drug, given 3 times daily for a period of from 5 to 7 days, sterilized the urinary tract in a series of 12 pregnant women with pyelonephritis, but that in 6 cases bacteriuria recurred without clinical symptoms.

Acute symptoms are usually controllable by a variety of means, none of which, however, ininclude sulfanilamide, serve to sterilize the urinary tract during pregnancy except in rare instances. In cases in which simple measures have been employed unsuccessfully for 3 to 5 days, recourse should be had to ureteral catheterization. This should be done at once in serious cases, and especially when relief from severe pain is essential. In the cases of the very ill patient with apparent unilateral involvement, we may choose to catheterize only the obviously diseased kidney, but the infection is usually bilateral and double catheterization is preferable. Simple evacuation of the retained urine accomplishes much, but prolonged drainage (3 to 7 days) accomplishes more, with no greater danger to mother or child, and less danger of being succeeded by reactivation of the infection. Repeated recurrences may, however, necessitate prolonged use of the indwelling catheter, which should be changed weekly. In a case treated by the senior author, the patient had a catheter in each kidney from the sixth month to term and was delivered of a healthy baby. We advocate the use of small (No. 5 F.) catheters, which inflict less injury than larger ones and afford perfect drainage in most instances. The catheter should be irrigated with normal salt solution if blockage occurs, and should be retained in favorable cases until the temperature has been normal 24 hours. One thousand cubic centimeters of glucose (5 to 10 per cent) in normal saline solution is given intravenously twice daily, also blood transfusions if indicated. Failure with the foregoing measures is an indication for induction of labor. Nephrostomy is a poor alternative to evacuation of the uterus, but is necessitated in rare instances by refusal of the latter procedure.—Leon Herman, M.D., and Craig Wright Muckle, M.D., Philadelphia. Pa. Med. Jour., Vol. 42, No. 8, May, 1939.

A Case of Pneumococcic Peritonitis With Recovery

FRANK J. DORAN, M.D.

SINCE the excellent article of Murray Bass in 1935 on Pneumococcic Peritonitis, several case reports of the entity have been noted in the literature. As this case seems to fulfill the diagnostic criteria of this catastrophic illness and whereas it terminates happily, I am submitting it to the record.

REPORT OF CASE

J. L., female child, aged 7, was seen by Dr. McCaffrey at my request in her home on June 10, 1937. He reported that the patient was in perfectly good health until 10 o'clock on June 9, 1937. At that time she stopped playing and ran into the house complaining of "sore stomach". She vomited and developed diarrhea and was seen by the Doctor that afternon. Dr. McCaffrey was convinced that there was no rigidity, temperature 102 and felt quite naturally that the condition was probably one of acute gastro-enteritis. He recommended the usual symptomatic treatment and advised the parents to contact me the following day if she did not improve.

Seen the following day, June 11, at 5 P. M., the picture was objectively one of acute generalized peritonitis.

The face was flushed, the patient lay on her left side, knees drawn up, vomited at intervals and had had about six stools that day. The abdomen was exquisitely tender, in no way distended and absolutely rigid. She cried continuously from pain. Hospitalization was immediately ordered and surgical consultation requested.

Blood count on entrance, 4,500,000 red cells, 22,550 white cells, hemoglobin 80 per cent. The urine was negative. No neck rigidity, no evidence of upper respiratory tract infection and there were no abnormal physical signs elicited in the thorax.

When seen by Dr. Frank Gibson the temperature was 39.3, pulse 120, respiration 28. Still vomiting, stools still loose, marked retraction and abdominal rigidity present. Dr. Gibson felt a general peritonitis was present, etiology in doubt. Recommended conservative supportive therapy.

From June 11 to June 16 her condition remained essentially the same, all pain being referred to her abdomen; white blood count staying at 22,000 to 26,000; the abdominal rigidity being relieved somewhat by hot stupes. On June 15 with no additional rise in temperature, the respiratory rate suddenly arose to between 70 and 80 per minute, the child appeared very much more toxic. Rales were heard in both bases. The white blood count rose to 30,000. Blood cultures and portable X-Ray of thorax were requested.

The roentgenologist made a diagnosis of bilateral broncho-pneumonia. The blood culture was positive for pneumococcus type I. The throat culture was negative for gram positive diplococci but positive for gram positive cocci in chains (hemolytic). A vaginal culture and swab were negative for pneumococci. We did not feel justified in recommending peritoneal puncture although I wish now that we had. A tentative diagnosis of pneumococcic peritonitis complicated by a pneumococcic broncho-pneumonia was made and it was decided to treat her symptomatically and with serum and to withhold surgical interference in spite of the poor non-surgical prognosis. We felt her general condition would not tolerate the trauma of surgery at that time. Within 24 hours from June 17, the face became flushed, perspiration was profuse, herpes labialis developed, the abdomen became distended, the stools became involuntary, dark brown and liquid. Stool culture was negative for any specific organism.

On June 17, anti-pneumococcus serum type 1 was started intravenously. Oxygen was maintained continuously. Subcutaneous saline administered to the point of tolerance. 107,000 units of serum was administered by June 18 at noon. Her condition seemed improved, the stupes were discontinued. Temperature fallen to 37.8, pulse 120, respiration 50. Her picture on the evening of June 18 was temperature 39, pulse 112, respiration 60. Abdomen softer and she passed a large semiformed yellow stool. 10,000 more units of anti-pneumococcus serum given at midnight, June 18.

On June 19, temperature 38, pulse 118, respiration 40. The patient maintained a plateau at this phase, appeared fairly comfortable, still complained of abdominal pain.

The temperature rose and stayed at about 39 beginning June 23 with no associated rise in respiration or pulse. The progress note on June 23 was "complained of severe abdominal pain", and there seemed to be localization in lower left quadrant. Rectal examination was not definite but suggested a mass on left side. Because of the persistence of abnormal chest sounds and this septic type of temperature, thoracentesis of right chest was done but no fluid obtained. The roentgenologist's report of X-ray plate done on July 3 revealed infiltration still present on both sides. At this point, June 28, the blood culture was negative but hemoglobin 58 and red blood count 2,820,000. She was given two transfusions of about 400 cc. with a return of blood picture on July 1 of 70 per cent hemoglobin, red blood count 3,500,000.

On July 7 she developed a diarrheaic watery stool which had the appearance of pus. With marked improvement in the general condition of the patient, the temperature fell from 40 on the 6th to 38.2 on the 7th and from that point on

Submitted January 12, 1939.

The Author

Dr. Doran, Cleveland, Ohio, is a graduate of St. Louis University School of Medicine, 1919; member American Therapeutic Society; American College of Physicians; diplomate American Board of Internal Medicine; visiting physician, St. John Hospital, Cleveland.

dropped to a level of 38 which was never again passed during her stay in the hospital. All abdominal symptoms gradually decreased in severity, the patient retaining only an increased resistance in the lower left quadrant. On July 26 there was still a sense of resistance in lower left quadrant and the white blood count remained high, 28,000, but the temperature began to hit 37 every morning and it was decided not to interfere, normal pulse and respiration rates, fluid intake was adequate and she was discharged as convalescent on August 9 with a normal temperature, white blood count 13,400, red blood count 3,700,000.

Follow up notes in my office reveal that when last seen on October 6 her chest was negative as to physical findings and fluoroscopic change. The abdomen was soft, not tender, her appetite good, gaining in weight and had returned to school.

COMMENT

Most of the diagnostic criteria of pneumococcic peritonitis are presented, e.g., the resemblance to acute gastro-enteritis, the youth and sex of the patient, the abrupt prostrating onset, the general peritoneal involvement, the sequellae and tendency to localization, the positive blood culture and the persistently high leucocytosis.

Paradoxically it is regretted that no surgical interference in the lower left quadrant became necessary as a positive pneumococcic culture would have made certain the diagnosis.

The marked clinical improvement associated with the watery stools containing pus suggest that the mass probably was an abscess which burrowed into the sigmoid or colon with drainage and spontaneous healing.

The successful termination of this case is without doubt due to the fine judgment of the surgical consultant, whose presence is an absolute necessity in the supervision of these cases.

1408 W. 65TH STREET.

Epinephrine in Oil

Epinephrine in oil, as developed by Dr. Edmund L. Keeney of Johns Hopkins Medical School and Hospital, was placed on the market April 1 by E. R. Squibb and Sons. This preparation is a suspension of powdered epinephrine crystals in peanut oil, in the proportion of 2 mg. in each 1 cc., resulting in a dosage form of epinephrine that has a more prolonged effect than the usual aqueous solution of epinephrine hydrochloride.

Epinephrine in oil is indicated in alleviating the acute paroxysms of asthma; chronic bronchial asthma; urticaria; and anginoneurotic edema. It is given preferably by intramuscular injection; it may be given subcutaneously; it should never be given intravenously. In the experience of Dr. Keeney the effect of a single dose of epinephrine in oil is to keep patients free from uncomfortable asthmatic symptoms for periods of from eight to sixteen hours.

Neoplasms of the Adult Kidney

Treatment of Neoplasms of the Substance of the Adult Kidney. The treatment has been purely surgical. One would expect good results from operation in malignancy of the kidney. The kidney has a good primary capsule and it is wrapped in a thick envelope of the fatty capsule. The neoplasm is almost invariably unilateral and the loss of one kidney does not seriously jeopardize the life or the health of the patient. The kidney including its fatty capsule lends itself very well to complete clean removal. Here you would expect operation to offer the best chance, but let us see what the results are. A fair average is something as follows. Of the patients operated upon there is an operative mortality of about 10 per cent. About 80 per cent show recurrence before the end of the fifth year and five per cent after the fifth year, which leaves about five per cent for cures. When you take into consideration the fact that only about 60 to 75 per cent of the patients seen are operable it reduces the percentage of cures for the whole group down to 2.5 per cent.

The Effect of X-ray Therapy: Unlike its effect in the kidneys of childhood this therapy has very little effect upon decreasing the size of the tumor and only a small percentage of the cases show this slight change. We have been using deep X-ray therapy routinely as preoperative treatment for about eight years. It is too early and our series is too small to allow us to evaluate our results. However, we do know that approximately three times as many are now living past three years as formerly lived with operation alone, and it is quite possible that time will show that our actual cures with combined therapy are considerably higher than with operation alone. However, it is also very evident that we are very, very far from the solution of the problem. I feel too, that we should not expect as much from preoperative and postoperative X-ray therapy here as we may in the case of neoplasm of the kidney of childhood.—Nathaniel G. Alcock, M.D., Iowa City; Jour. of the Iowa State Medical Society, Vol. XXIX, No. 5, May, 1939.

Tuberculosis and Appendicitis

Eight more cases of tuberculous appendicitis were added recently to the report of the 151 already in the literature prior to May, 1937. The clinical course of the disease tends to chronicity, with recurrent attacks usually milder than the pyogenic types of appendicitis. Earlier recognition and early operation are urged.—Card, T. A., Cal. West. Med., 1939. 50.

The Status of Puerperal Gynecology In Modern Obstetrics

J. L. BUBIS, M.D.

IN 1850, White[1] of your city dared to face the criticism and condemnation of the press and the profession by delivering a woman before a group of students. Any digression from the routine has always been and still is an invitation to criticism and censure. The medical spotlight was again turned on Buffalo when Potter[2] presented his simplification of podalic version. His advocation of complete relaxation under deep anesthesia, lack of haste in delivering the child, and numerous other technical maneuvers have helped me in many cases that might otherwise have had disastrous results.

It is, perhaps, like carrying coals to Newcastle to appear before men so well versed in the field of obstetrics and gynecology. On the other hand, it is only men who have had extensive experience who realize the need of changing some of the old ideas for the benefit of womanhood. Vaccination against smallpox was resisted until its value had been proved. Today, injections of sera to treat and prevent ailments are so widely used that a child must feel like a pin-cushion before he becomes an adult. When antisepsis, anesthesia, analgesia, and hospitalization were first introduced to make obstetrics safer and less painful, many condemned the procedures and fought vigorously against them. Even today, in some large cities and in otherwise well-conducted hospitals, many women receive very little relief in travail.

EVALUATION OF NEW IDEAS

In order to evaluate a new idea in medicine, it is important first, to work out the details, modify them, improve the technic, and then carefully check and recheck the results over a long period of time, always bearing in mind the safety and welfare of the patient, and the dangers or benefits that may arise therefrom. After standardizing the technic, indications, contraindications, and noting both good and bad results, then the medical profession should be informed of the procedure. After due time, it is well to take stock and compare the results of others with those of the author, so that definite conclusions may be reached, taking into consideration, also, the hospital facilities and technical abilities of the various men. Such a time has certainly arrived in judging the status of puerperal gynecology. Richardson[3] wrote, "It is encouraging to note that there now appears to be a real awakening of interest in this matter and that obstetricians generally are beginning to realize the importance of puerperal gynecology."

The modern trend in all branches of medicine is toward prophylaxis. The press[4] and radio lecturers stress the importance of preventive medicine. It is offered as a partial solution of many economic problems as well as a means of avoiding physical distress. In obstetrics, insurance against future disability depends largely on making sure that the mother is left in the best possible physical condition after childbirth. Examination and repair of the generative tract is very rare in some institutions and many women are forced to go through the child-bearing period in a semi-invalid condition when they should be in the best health for reasons that are apparent. The indifference evidenced by the careless manner of handling cases by many obstetricians, when the future health of the mother is at stake, is no credit to the profession. No series of tonsillectomies would be considered well performed if a large percentage of tags remained, nor would a record of numerous hernias following a series of abdominal operations indicate careful surgery. Can we, as obstetricians, ignore the fact that the unavoidable lacerations following childbirth are left unrepaired in thousands of cases each year?

INCIDENCE OF CERVICAL LACERATIONS

Nugent[5] presented a follow-up study of the incidence of cervical lacerations. He found a lack of uniformity in statistics on this subject in current medical literature, from which he compiled the following: Galloway found the incidence of cervical lacerations to be 15.8 per cent in 500 primiparas. Aldridge and Watson 34 to 48 per cent in 2,800 patients, Barrett found about 50 per cent unsatisfactory results, King 78 per cent in 183 patients, Peckham 79 per cent, Tracy 90 per cent, and Nugent's were unsatisfactory in 24 per cent. He made five classifications according to degree of injury and included among those

The Author

Dr. Bubis, Cleveland, is a graduate of the Cleveland College of Physicians and Surgeons, 1907; fellow, American College of Surgeons; member Central Association of Obstetricians and Gynecologists; chief of gynecology, consultant in obstetrics, Mt. Sinai Hospital, Cleveland; author of "Puerperal Gynecology," (Wm. Wood and Co., 1935.)

Read before the Obstetrical and Gynecological Section, Academy of Medicine, Buffalo, New York, October 19, 1938.

with satisfactory results 39 per cent with erosion or superficial laceration, which, he stated, is the type of injury which readily responds to office cautery.

If we can show that the repair of these injuries can be safely done in the puerperal state, an important step will be made in the field of prophylactic medicine.

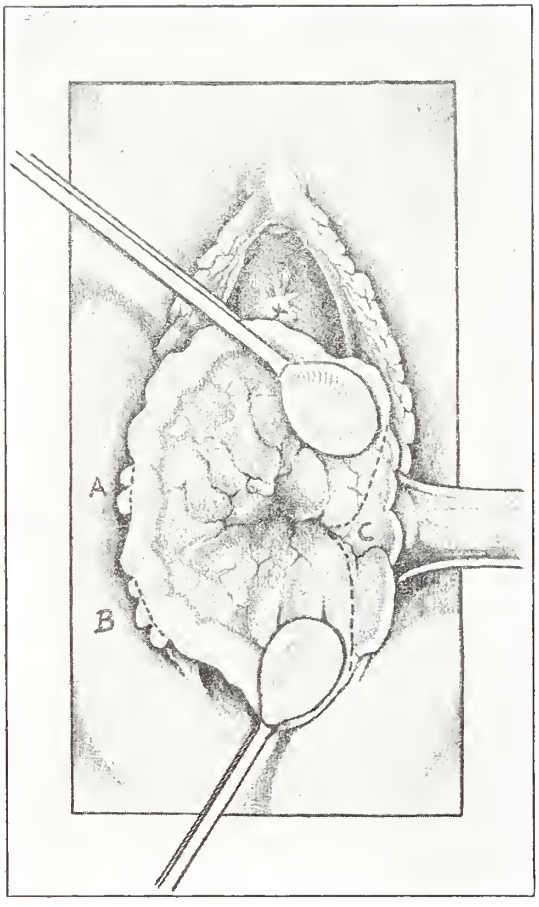


Fig. 1. Submucous Avulsion of Cervical Muscle.

In March, 1918, in the *Cleveland Medical Journal*, my first article on the immediate repair of the cervix following childbirth appeared. Few obstetricians accepted my recommendations, but during the years following, I have had many opportunities to meet men interested in the repair of new, old, or combined lacerations. Among the increasing reports on this subject, I was pleased to read one by Potter[6] in 1928.

The late John O. Polak and Percy Toombs were among the earlier advocates of the procedure and Pride, Reinberger, Crist, Danforth, Melick, Gayden and Plass, King of Toledo, and others have written me or reported in journals their results and observations, some of which I shall mention later.

I do not advocate the universal adoption of gynoplastic repairs by untrained men. The student, the practicing physician, and even the specialist must appreciate the difficulties as well as the advantages of this type of obstetrical care and train toward perfection of technic as in any branch of surgery. Williams[7] states in his review of my book, "If such treatment of gynecological lesions, complications of obstetrical practice, is to become common, and to be regarded in the scope of modern obstetrics, then the training of the obstetrician must include gynecology and surgery."

In 30 years of gynecological practice, it has been my observation that Nature too frequently fails to heal even a small tear satisfactorily. Our patients are always prepared for delivery under the strictest aseptic and antiseptic conditions, and under general anesthesia as for a major surgical operation. After the expulsion of the placenta, if there is no history of the presence of an infection or other contraindication, the generative tract is examined for new as well as old lacerations. I have used the following technic for many years:

First, a Gelpi-Bubis weighted speculum is inserted.

Second, the vagina is cleansed with sponges wet with 1 per cent Lysol solution; the uterus is pushed downward by fundal pressure.

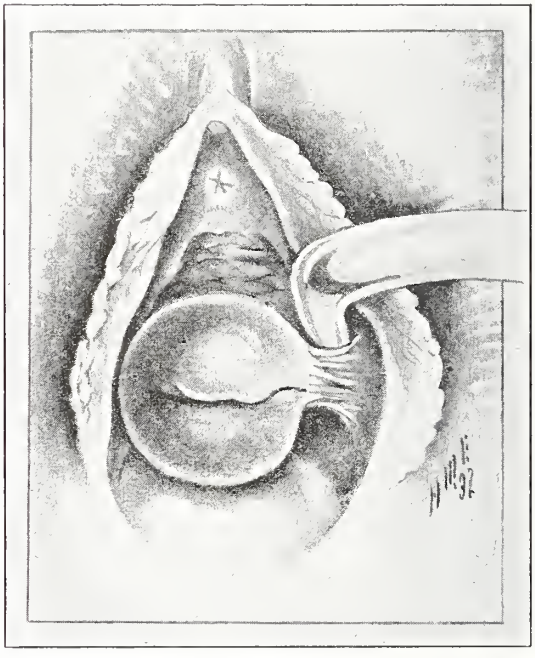


Fig. 2. Cervico-vaginal Adhesion

Third, the anterior lip of the cervix is grasped by a ring-shaped tenaculum. The uterine cavity is wiped out with two or three gauze sponges dipped in 3.5 per cent iodine or other antiseptic solution. This stimulates the uterus to further

contraction, wipes out any pieces of placenta, blood clots, or membranes, and may act as an additional prophylaxis against infection.

Recent lacerations of the cervix, regardless of size, extent or number are repaired. Any tags or irregularities that are present are snipped off with scissors. If a submucous tear is present, (Fig. 1), evidenced by a puckering or localized depression of the cervix, a typical trachelorrhaphy is performed to unite the torn muscle fibres and the vaginal mucosa. If there is an old tear, the scar tissue must be cut down to healthy muscularis and repaired.

There are many operations of the cervix that may be performed immediately after delivery. A badly torn or hypertrophied cervix may be removed or partially amputated. Nabothian cysts are cut away with scissors or curetted in the manner advocated by Potter, fibroids in the cervix are treated according to size, location and condition by marsupialization or enucleation. Polyps are removed and sent to the laboratory for microscopic examination.

An elongated cervical lip may be easily removed by amputation and the edges sutured by No. 0 interlocking chromic catgut.

We have performed quite a number of en-

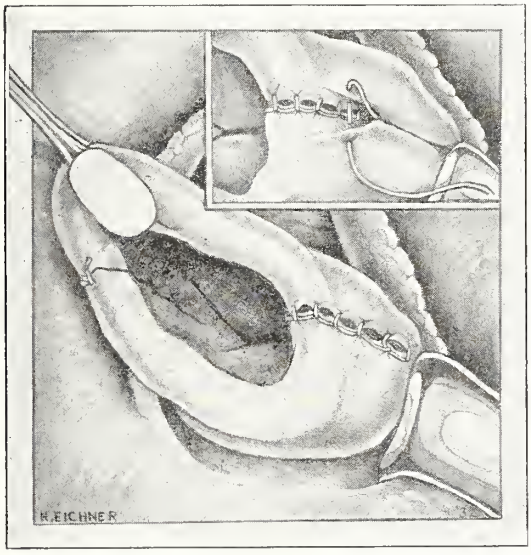


Fig. 3. Lembert Suture.

docervisectomies when there is a pouching of the anterior wall of the cervical canal after delivery due to hematomata forming between the musculature and the endocervical tissue. This operation prevents ectropion of the anterior cervical wall.

In suturing the cervix, it is important to see that no pockets or fistulous tracts remain along the line of suture, that the vaginal mucosa on the outer side of the cervix is smooth so that no adhesions may form between the cervix and the vaginal wall, (Fig. 2), that the external os is not so tightly closed as to interfere with drainage, and that no gaping occurs at the angles of the cervical os. These conditions are prevented by controlling the hemorrhage and removing

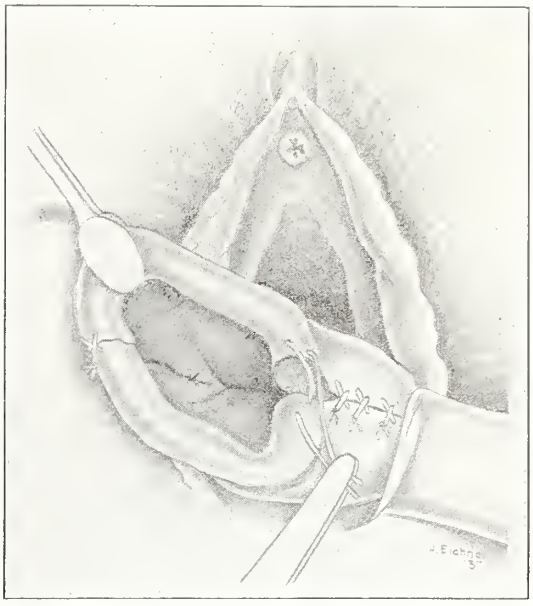


Fig. 4. Cervical Repair.

blood clots from the cut surfaces, by tying the sutures just tightly enough, by carrying the suture line down to the very edge of the cervical incision, and by using interrupted or continuous interlocking No. 2 chromic catgut sutures. If there is any raw surface on the outer edge of the cervix, this is covered by a continuous Lembert suture. (Fig. 3).

In the past few years, for practically all cervical repairs, I have used an inverting stitch (Fig. 4), which starts about a half inch from the upper angle or apex of the wound, continues down to the edge of the cervical mucosa, and is carried through to the other side of the cervix, in reverse. It is then brought over to the first side again and started a quarter inch away from the edge of the incision, is carried through the upper layer of muscularis and out through the other side. The two ends of suture are then brought together and tied, which makes a coaptating suture of the muscularis and inversion of the vaginal musoca. This stitch is repeated at half inch intervals up to the edge of the cervical os.

If the uterus has a tendency to relax or bleed after the repair of the cervix, and does not respond to routine uterine stimulants, it is again wiped out with sponges and a wide, iodoform packing is inserted up to the fundus and left in from 24 to 48 hours.

Operations on the urethra may be performed to correct prolapse, or caruncle or to remove polypi. A cystocele, which is generally concomitant with urethral prolapse, may be repaired. In 1925[8], I reported my first case of primary cystocele operation. Since then, I have performed this operation a number of times with very satisfactory results.

Puerperal gynecological operations of the vulvar orifice may be performed to correct pathologic conditions present. Lacerations of the vaginal walls must not be neglected, nor should the repair of a rectocele and relaxed perineal body be omitted. (Fig. 5). Some men claim that a good

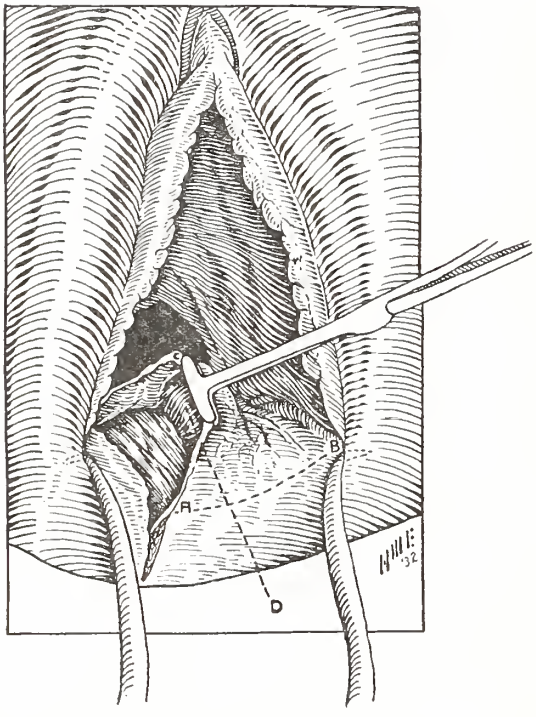


Fig. 5. Episiotomy and High Rectocele.

perineal body will take care of a sagging anterior wall, i.e., a cystocele and a urethrocele. This is a fallacious idea that we have disproved on many occasions.

Operations on the anus vary from simple dilatation of the sphincter ani muscle to incision of thrombotic piles or complete removal of the pile-bearing area. The pain from the operation, which gives a permanent cure, does not last longer than the time it would take for the piles to subside spontaneously but the latter method very frequently necessitates a subsequent operation.

A detailed account of the technic of the operations may be found in my book, "Puerperal Gynecology."[9] Since its publication in 1935, there is little to add. There have been no other maternal deaths following gynoplastic repairs after childbirth, which appreciably lower the mortality rate of .19 per cent or 5 of the 2,600 cases of puerperal gynecological repairs therein reported. The obstetrical department of Mt. Sinai Hospital continues to repair all new and old lacerations immediately or shortly after delivery unless there are grave contraindications present. The morbidity rate has decreased owing to improved technic and skill of the men as their experience increases.

I would like at this time to present a few brief extracts from the reports of other obstetricians who have been performing gynoplastic repairs following childbirth.

Danforth,[10] in 1928, stated that 10 per cent of 975 deliveries had lacerations of the cervix that warranted immediate repair. Of these, 58 lacerations were less than 2 c.m. in length, 44 were 2 c.m. or over. In 1936,[11] he reported 3,534 deliveries. In this article he advocated the immediate inspection and repair of all lacerations over 3 c.m. in length. In his series, injuries to this extent were found in 11.2 per cent of the primiparas and 4.1 per cent of the multiparas.

Potter,[12] in 1928 reported gratifying results in the repair of 1,000 cases of cervical lacerations. He found the procedure an aid in accomplishing and maintaining involution, and effecting a cure in previously existing cases of cervicitis. Hospitalization was not prolonged but rather lessened by the speedier involution. At the time of writing this paper, Potter thought that repairs of the cervix should be done routinely but that there was some risk in my more extensive operations. Our results down the years have proved that increasing experience lessens the dangers to a minimum and increases the benefits to the patients. Discussion of Potter's paper by Haydn, King and Jackson was most interesting and I am eager to learn the later experience of these gentlemen.

In the same journal, Polak[13] stated that "multiparas who have been subjects of previous obstetric injuries may be repaired in the lying-in period with excellent results, and the cervix, anterior wall, and pelvic floor may be restored with reasonable expectation of success. Birth injuries uncared for lead to chronic invalidism from prolapse, displacement, menstrual disturbances and predisposition to local infection, local irritation, or faulty drainage, which, in turn, favor the development of cancer of the cervix." Graves' record was cited comparing the incidence of obstetric trauma preceding cancer of the cervix, estimated at 91 per cent. In 4,815 cases of cervical repairs in which follow up records found only seven cases that later developed cancer, and in three of these malignant changes were already present in the tissue removed at the time of operation.

Culbertson[14] encountered difficulty with bleed-

ing, but had good results with perineal and cervical repairs.

Greenhill[15] had satisfactory results though he encountered some loss of blood. He found these cases more easily operated than the non-pregnant and advises the use of local anesthesia whenever possible.

King[16] of Toledo stated that it is the duty of the obstetrician at the time of delivery to not only prevent unnecessary injury to the mother but to repair those that cannot be prevented. In his report of 470 hospital cases, the infected or toxemic cases were excluded; 70 per cent of the 300 cases of immediate repair showed definite evidence of trauma, varying from lacerations of the cervix, vaginal wall and vulvae to perineal separation and episiotomy. The greatest number occurred in posterior positions of the fetal head whether labor was terminated normally or by operative interference; next in order were breech deliveries, version and extraction, and last the anterior position. He found that immediate examination of the vaginal tract and repair of new injuries to the cervix, vaginal wall and perineum cases. In a group of 20 cases of more extensive repairs, his results were not entirely satisfactory, hospitalization was prolonged and the morbidity was increased. The fact that the tissues are thin, shredded, distorted, and more friable after delivery made the operations more difficult and forced him to hastily tie the sutures without his usual careful precision. He claimed satisfactory results, however, in 75 per cent of the repairs of the perineum alone, or cervix and perineum, and admitted that experience and improvements in technic may, in time, decrease the number of unfavorable results. In selected cases and under favorable conditions, repair of old cervical and perineal injuries is advocated, but he prefers the delay for more extensive repairs.

Pride,[17] in 1937, gave a report of 307 repaired cases. As time passes and his experience grows, his enthusiasm gathers momentum. His arguments in favor of the procedure are: "It leaves the patient in good obstetrical condition. Few patients voluntarily return for operation at a later date. Long hours on the feet cause displacements and prolapse. The patient becomes

CHART I

Table 1. Repairs of Incomplete Lacerations Immediately After Subsequent Delivery.

Type of Operation	No. of patients	Average No. of days	Mortality	Morbidity		Results	
				1 day fever	More than 1 day fever	Anatomical	Functional
Perineorrhaphy	128	12.1	0	12 9.3%	3 2.3%	Good: 124 Fair: 4	Good: 128
Perineorrhaphy and Anterior Colporrhaphy	6	13.5	0	3 50%	0 0%	Good: 6	Good: 6
Perineorrhaphy, Anterior Colporrhaphy and Cervical Repair	3	14.8	0	2 66.6%	0 0%	Good: 3	Good: 3
Perineorrhaphy and Cervical Repair	2	13	0	1 50%	1 50%	Good: 2	Good: 2
Total	139	13.2	0	18 13%	4 3.1%	Good: 135	Good: 139

yield satisfactory results in most cases. The delayed type of operation was used but was found unsatisfactory and discontinued except in some few cases where there was a contraindication to immediate operation.

There was no mortality in the repair of 150 cases of old lacerations of the perineum, cervix, cystocele, urethrocele, rectocele, and varying degrees of procidentia which were repaired and which will be compared later with 150 unrepaired

nervous and irritable. Cancer is more liable to develop in older patients. The question of expense enters. When the mother is in good condition, there is practically no risk." Pride finds that healing is really more satisfactory at this time than at the time of elective surgery. The patients are sent home in more normal surgical condition.

Gayden and Plass,[18] (Charts I and II), in 1937, gave two interesting charts showing their re-

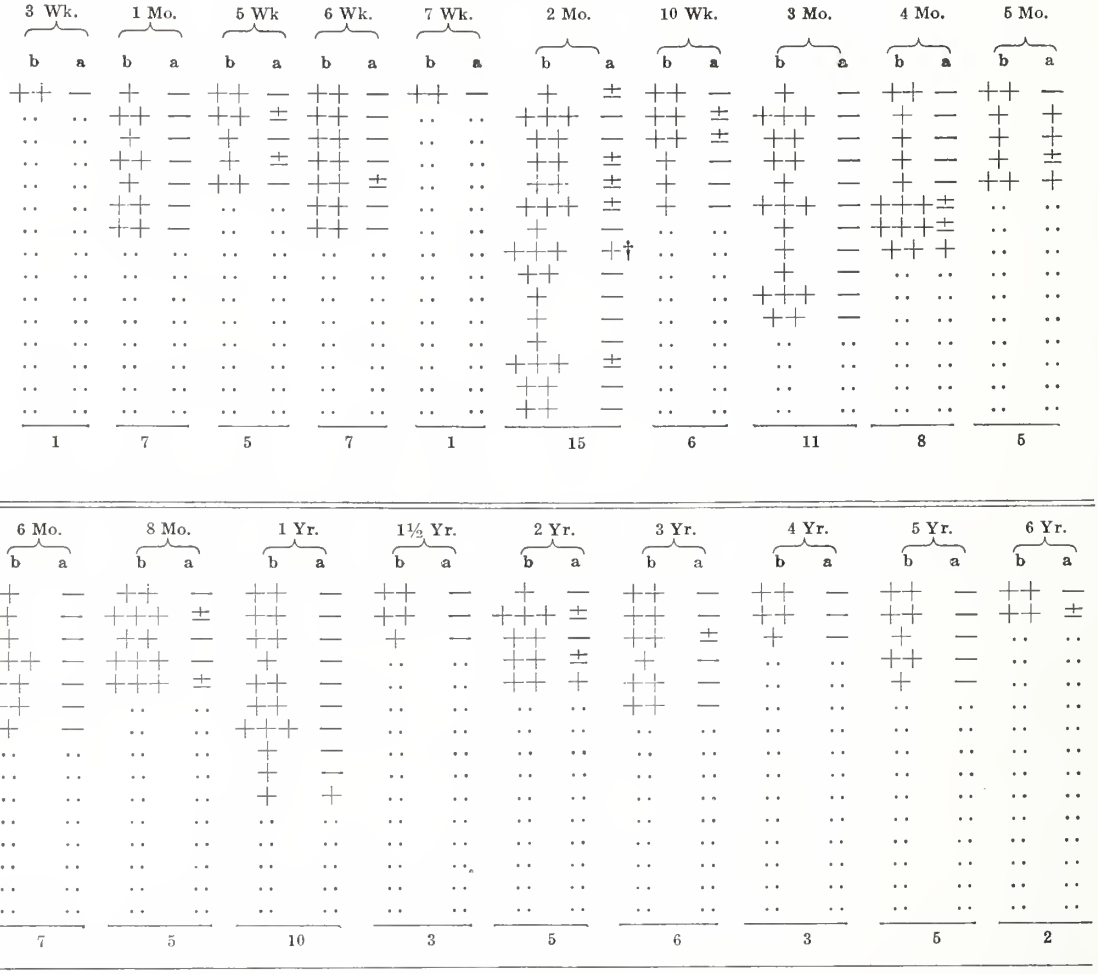
CHART II

Table II. Repairs of Complete Perineal Lacerations Immediately After Delivery as Compared With Similar Operations, Months or Years After Last Pregnancy.

Time of Operation	No. of Patients	Average No. of days	Mortality	Morbidity		Results	
				1 day fever	more than 1 day fever	Anatomical	Functional
Immediately after deliv.	22	14.3	0	3 13.6%	1 4.5%	Good: 19 Fair: 3	Good: 21 Poor: 1
Months or Years after delivery.	60	17.1	1 1.7%	23 38.3%	12 20%	Good: 44 Fair: 12 Poor: 4	Good: 52 Fair: 6 Poor: 2

CHART III

Condition Before Confinement and End-Results After Delivery and Repair in One Hundred and Twelve Private Cases*



* The symbols are interpreted as follows b, before operation; a, after operation; +, amount of relaxation; —, no relaxation, perfect results; ±, slight relaxation.

† Patient developed perineal infection with sloughing.

sults. In the first, they presented 139 cases of old lacerations repaired immediately after subsequent delivery. Their patients averaged 13.2 hospital days, with no mortality; there was an average of 13 per cent with morbidity of one day fever, and 3.1 per cent with more than one day fever. Anatomical results were good in 136 cases and fair in four, and functional results were good in all.

In the second chart, 22 cases of complete lacerations repaired immediately after delivery were compared with 60 similar operations performed months or years after delivery. In the immediate operation, the stay was 14.3 days and no deaths occurred. In the delayed, the average stay was three days longer and there was one death. Morbidity was very much higher in the delayed operation and anatomical and functional results were also considerably in favor of the immediate operation. Puerperal gynecological repair is recommended by Gayden and Plass for consideration by those who are familiar with the surgical principles involved.

In comparing our own records with reports from other institutions, I am led to believe that the long and careful training of our staff is responsible for their excellent success in the immediate repair of lacerations following childbirth. It undoubtedly takes time to develop and perfect one's technic, whether the operation is a tonsillectomy, a cholecystectomy, or a gynoplastic repair. A change in the curriculum of the medical colleges is indicated so that the students may be properly taught the full scope of modern obstetrics and the specialist in that field must prepare himself so that he is able to handle any gynoplastic procedure that is indicated at the time of delivery. For the beginner, it may be better to delay the operation a few days, in order to work more leisurely. The prolonged stay in the hospital, objected to by King, is even to be preferred at a time when the patient's domestic affairs are provided for, to a full period of hospitalization at a later date. Our patients are generally able to enjoy the financial advantages of our 12 day maternal hospitalization plan and their stay rarely exceeds that period.

The hospitalization of a greater number of obstetrical cases is most important. In reporting Cleveland births from 1930 to 1936, Runnells[19] stated that 63 per cent were delivered in hospitals and the remaining 37 per cent were done in homes. Since puerperal gynecology can only be performed under conditions suitable to any form of major surgery, it is necessary, first of all, to provide adequate hospitalization for all obstetrical cases, whenever possible.

Very few of our cases return to the hospital for any subsequent repair. Those that do are cases that were not repaired following delivery for some specific reason, or in rare instances, where the operative results were not satisfactory. Before puerperal gynecology became a routine procedure, a great number of our patients would constantly return to office, clinic, or hospital for

CHART IV

Subsequent Deliveries after Gynoplastic Repairs

Name	Para	Date 1st Ex.	Delivery	Repair	Subsequent Examination	Remarks	Subsequent Deliveries	Later Exam.
M. H.	ii	12/2/10 Rel. +++ C. ++ R. +++ Lac. Ce.	6/23/21 Knee presentation. 13 lb. baby	T.C.P.	3 months — — well healed		4/18/24 L. F. P. H.	18 mos. later in good cond.
J. K	iv	10/2/20 Rel. ++ C. + R. ++ Lac. Ce.	11/1/20		5 weeks ± — ± good cond.	Aet. 44 years	9/15/23 Normal delivery P. H.	5 mos. later genitalia in good cond.
R. L.	vii	4/21/19 Rel. ++ R. ++ Lac. Ce.	6/10/19 Normal	T. P.	5 years — — good cond.	Aet. 42 years	3/10/24 Normal delivery	3 mos. later genitalia in good cond.

Rel., Relaxation. C., Cystocele. R., Rectocele. Lac. Ce., Lacerated cervix. T., Trachelorrhaphy. P., Perineorraphy. L. F., Low forceps. H., Hemorrhoidectomy.

Charts III and IV are from H. V. Gayden and E. D. Plass: Repairs of Incomplete Lacerations Immediately After Subsequent Delivery, and Repairs of Complete Perineal Lacerations Immediately After Delivery as Compared with Similar Operations Months or Years After Last Pregnancy; American Journal of Obstetrics and Gynecology, Vol. 33, No. 3, pp. 484, March, 1937.

treatment or repair. At Mt. Sinai Hospital, gynoplastic repairs are performed on private and ward cases alike.

Our men feel amply repaid for the added work and strain by the satisfaction of knowing that they have done everything in their power to help their patients leave the hospital in the best possible physical condition.

The reports that have been quoted and others that I have received indicate that the profession is beginning to realize that obstetrics is not merely male midwifery. It is admitted that innumerable lacerations occur during childbirth and that these are too often neglected to the detriment of the patient's health. By combining obstetrical care and puerperal gynecology, we are able to lessen the economic and physical burden to the patient, and the community.

Many obstetricians have found that gynecological repairs can be done with safety during the puerperal period; 100 per cent perfect results may not be achieved, but the economic and physical advantages in the large number of satisfactory cases more than outweigh the few failures. A surgeon does not hesitate to perform herniorrhaphies though he knows that there may be a slight number of recurrences.

It is very gratifying to read the increasing number of reports on this subject and I am convinced that puerperal gynecology will eventually be considered one of the most important phases of natal care. The old adage, "A stitch in time saves nine," may now be changed to "More stitches and healthier mothers."

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X-ray Treatment of Psoriasis

A man about forty years of age consulted a physician who specialized in dermatology with respect to a condition of psoriasis from which he had been suffering for approximately 18 years. He told the doctor that he had used various types of medication in the treatment of the condition and that when it had become severe he had used chrysarobin on his right arm. The examination showed an irritation due to chrysarobin on the right arm and that the patient was suffering from psoriasis all over his body manifested by whitish, raised lesions covered by scales.

The doctor administered a series of X-ray treatments to the patient which were continued from time to time over a period of about five weeks. These treatments were administered to various parts of the body but at no time was any X-ray therapy given to the right arm where chrysarobin had been applied. After the X-ray treatments, the patient developed exfoliative dermatitis on his back, flanks, and right shoulder. The defendant undertook to treat the condition on two occasions following the last of which, although he was instructed to return, he never again appeared for treatment. It was ascertained, thereafter, that the patient was hospitalized for a period of about six weeks for the purpose of undergoing treatment for exfoliative dermatitis.

A malpractice action was instituted against the physician in which the charge was made that the defendant had negligently administered the X-ray treatment to the patient causing the exfoliative dermatitis to develop.

The case came on for trial before the court and a jury and the plaintiff claimed that the defendant had improperly super-imposed X-ray therapy upon a region previously treated with chrysarobin and that as a result of such alleged improper treatment exfoliative dermatitis developed. The defendant denied the claim and asserted that he had never applied X-ray therapy to the portion of the body in question. The issues in the case were submitted to the jury and a verdict in favor of the defendant was returned thereby exonerating him of all charges of malpractice.—N. Y. State Med. Jour., January 15, 1939.

Pregnancy Complicated by Heart Failure, Chorea, Pyelonephrosis and Psychosis

ABE CLINE, M.D.

MRS. S. age 20, was admitted to the hospital on Medical Service, September 26, 1938, presenting the picture of complete heart failure: dyspnea, orthopnea, cyanosis and tightness in the throat. She had felt quite well until two days previously. Although delicate, she had had few illnesses. These included scarlet fever in childhood, and chorea at the age of 10, recurring two years ago. Tonsillectomy had been done when she was six.

Her menses had been regular and normal until April 5, 1938, from which time pregnancy, her first, had developed normally. Examination revealed a small, slender restless girl, pale and cyanotic, with incessant choreiform movements.

The heart was enlarged to the left and displayed a rough vibratory murmur, extending through systole and diastole. Temperature 100 to 101, pulse 130 to 140; respiration 30 plus. Her urine showed albumen; her blood a secondary anemia. X-rays showed the characteristic enlargement of mitral stenosis, and bilateral pulmonary congestion. The question of emptying the uterus was raised, but Dr. N. C. Hochwalt, obstetrical consultant, advised bed rest and expectant treatment.

In one week the patient had made a splendid recovery and was sent home in an ambulance. Dr. J. K. Hoerner, in obstetrical consultation advised continuous observation and delivery by section, as near term as patient could be carried.

Four weeks later, on October 31, the patient was brought in again, in complete decompensation, and admitted to the obstetrical service; pulse 150, temperature 101 to 104, respiration 30 plus, slight abdominal contractions, pale, cyanotic and restless. Dr. Hoerner at this time advised treating the heart and disregarding the pregnancy.

November 2, the patient's condition was desperate. Her chorea was very marked. Treatment was enforced rest and digitalization.

November 4, considerable improvement. Temperature 98, pulse 96. Fetal heart remained steady and movements active each day. A variety of sedatives were resorted to, bromides, barbiturates and opiates. At this time the patient complained of persistent pain at the right costal margin and was nauseated. The urine showed albumin and 50 W.B.C. per H.P.F. Dr. Tyvand confirmed the diagnosis of pyelitis. Blood creatinine rose to 2.5 and p.s.p. output was 33 per cent in two hours.

November 8, heart apparently compensated, but a growing restlessness with increase of choreic movements developed into a state of mental confusion, when I succeeded to the care of the patient on November 15, service of Dr. W. A. Ricketts. She required restraint at that time, was getting out of bed, moving incessantly, talked irrationally and had auditory and visual hallucinations. Dr. M. R. Haley, medical consultant, suggested minimizing sedatives, and urged early section to save the patient's life.

Dr. E. C. Fishbein, neurologist, diagnosed psychosis of pregnancy, of manic depressive type, prognosis guarded, and advised section but after psychosis controlled. Dr. Ricketts and I felt that any instrumental or surgical interference presented greater dangers than even the present state of affairs, so we decided not to interfere.

November 20, patient had cleared mentally, was rational, felt refreshed and sat up 10 minutes. She had been given three transfusions of 400-500 cc. each up to this time, and received eight more during her stay.

November 23, regular but light uterine contractions set in, lasting 20 hours. Patient was kept quiet with one ounce of paraldehyde rectally. The cervix dilated to 2 cm. Next day pains stopped entirely. The patient evidenced some heart failure but responded to treatment and improved until December 1 when her pulse rate was 76 and she began to sit up in a chair daily. Her choreic movements were greatly modified. She was shortly able to be on her feet. She went home for Christmas, returned in two days, none the worse. She was examined on her return by Dr. A. F. Kuhl, who diagnosed mitral stenosis, and felt that she could survive a vaginal delivery under ether anesthesia. X-ray and electrocardiograph confirmed the physical findings. Pus and albumin still appeared in her urine which remained alkaline, in spite of ammonium mandelate and sodium acid phosphate. However, she was up and about ad lib, and complained only of impatience.

January 14, another false labor with pains lasting 24 hours, producing some thinning of the cervix but no increase in dilatation.

January 15, Thymopitism m. 111 given twice in an attempt to improve the strength and rhythm of pains. Not effective and labor stopped.

January 19, labor started and proceeded with increasing force and with gradual dilatation of the cervix. 5:30 p.m. spontaneous partial rupture of membranes. Morphine gr. 1/6 c. scopolamine

Submitted March 17, 1939.

The Author

Dr. Cline, Dayton, Ohio, is a graduate of Indiana University School of Medicine, 1921; member Dayton Obstetrical Society; member of obstetrical staff at Good Samaritan Hospital, Dayton.

gr. 1/150. Patient's condition excellent. Fetal heart firm and steady. Position ORP.

8:45 p.m. Dilatation practically complete, fetal head descending in transverse position. Under ether anaesthesia the membranes were opened, an episiotomy was performed, then manual rotation of the head to occiput anterior, and low forceps extraction. The baby, a male, weighed 5 lbs., 8¾ oz. and cried lustily.

The mother was given morphine gr. 1/6 immediately on awakening and the same dose 8 hours later. She was not allowed to nurse her baby. Her blood count three days postpartum was RBC 3,100,000 Hgb 65 per cent. On January 30, after two transfusions RBC 4,570,000 and Hgb 89 per cent. Her temperature and pulse remained normal.

She was dismissed in excellent condition on her 13th postpartum and 90th hospital day. Her blood creatinine was still elevated and blood and pus still appeared in her urine. Her pulse was steady and slow, color good and no dyspnea on ordinary exertion. Her maintenance dose of digitalis was gr. 1½ daily.

COMMENT

The combination of chorea with mitral stenosis complicating pregnancy has been rarely described. This patient suffered, moreover, myocardial decompensation, pyelonephrosis and psychosis of pregnancy. Conservative obstetrical management proved to be advisable. General treatment included digitalization and rest, high caloric feedings with added vitamins, ultra violet rays, blood transfusions and iron. Our patient improved markedly, as cardiacs often do, during her last weeks of pregnancy. Ether is probably the safest anesthetic during labor for a patient with a heart lesion. Vaginal delivery is well tolerated, but pushing and straining must be avoided by eliminating volition in the second stage. The ultimate prognosis is, of course, unfavorable.

Repeated blood transfusions demonstrated their value in maintaining a satisfactory blood picture, as well as improving the general status of the patient.

Case Report on Streptococcic Septicemia; Sulfanilamide Therapy — A Sequel

H. A. Bollinger, M.D. and L. R. Effler, Toledo, Ohio

Some months ago,* the authors reported in the columns of this journal a spectacular recovery from streptococcic septicemia following the use of prontosil. An unlooked for circumstance makes necessary and interesting a report of the sequel of this same case.

The patient left the hospital at that time temperature-free. She was continued under observation, however, for several months with the usual instructions for rest, tonics, and a diet rich in fats and carbohydrates. During this period, she gained weight (from 118 to 140 lbs.) and hemoglobin (from 50 to 80 Sahli). On 11/7/38, patient developed a heavy cough with low-grade temperature. No great alarm was experienced because a simple bronchitis was diagnosed. Prompt improvement, however, either in temperature or cough was not forthcoming. On 11/14/38, she was again hospitalized. A few days observation in hospital was all that was necessary to convince the authors that the patient was again engaged in a **battle for her life.** Again, it was the streptococcus that seemed to be creating all the mischief. The temperature chart showed about the same high-low steeple fluctuations (99 to 105.5) that had characterized it before. Under the circumstances, a diagnosis of "**streptococcic septicemia**" seemed justified a second time.

Strangely, however, the blood culture remained consistently negative and the same doses of prontosil, which had operated so spectacularly before, produced not the slightest effect upon symptoms or temperature in this instance. A chest examination revealed no definite physical signs. All other examinations were negative. The failure of prontosil to work could not be explained in this instance despite the fact it was given for one week almost to saturation.

Consultation on the sixth day developed only one recommendation that had not been deemed necessary hitherto, viz. an X-ray of the chest. This X-ray showed a number of small fleecy and flocculent patches distributed through the lung-fields. Ordinarily, they would probably have been passed over as inconsequential. In view of the clinical picture, however, a tentative diagnosis of "streptococcic broncho-pneumonia" was ventured. The diagnosis was probably correct. On the seventh day, the patient developed a pre-critical rise in temperature to 106, that was followed almost immediately by a typical crisis—and prompt recovery. Needless to say, this is the strangest case of "streptococcic pneumonia" the authors have ever seen. Neither by physical signs nor by X-ray was a lobar pneumonia either suspected or found. Yet, the course of the disease moved in the direction of a typical lobar pneumonia.

SUMMARY

(1) This patient had a severe case of "streptococcic septicemia" some months before and made a spectacular recovery under prontosil.

(2) This patient had a second case of what purported to be "**streptococcic septicemia**" but was unaffected by prontosil given her in the same dosage.

(3) An alternattive diagnosis of "streptococcic broncho-pneumonia" was offered following an X-ray of the chest.

(4) Strangtly, the clinical course of this case followed the lines of a typical **lobar pneumonia,** however, although X-ray and physical signs did not support the diagnosis.

(5) Why did prontosil work so spectacularly in the first instance and seemingly not at all in the second, although the streptococcus was the causative germ in each case?

*April, 1938, page 399.

A Simple Allergen-Free Room in the Emergency Management of Non-Seasonal Asthma

JONATHAN FORMAN, B.A., M.D.

THE first and fundamental thing in the management of asthma is to get the victim into an environment which is free of the offending substances to which he is abnormally sensitive. Because the victim is often seen for the first time in the midst of an attack, there is no opportunity to make skin tests for clues as to the possible offenders. It, therefore, becomes necessary to proceed as if all the possible substances were at fault and consequently to eliminate them all by putting the victim into a room free of all such substances.

In such an emergency such a room can be prepared in the home just as efficiently as in the hospital and, in fact, in many instances more easily. It is simply done—to make up this allergen-free room for non-seasonal asthma, select if possible a room on the windward side of the house. First, remove everything from the bedroom and its accompanying closet—carpets, draperies, pictures, bed, dresser, vanity, chairs, etc.—every single object. Then carefully brush down every inch of the walls with a clean brush. Now providing two buckets of clean warm water in which have been dissolved some good water softener, tribasic phosphate, climalene, et. al., and clean cloths, the woodwork is washed down. As the cloth becomes filled with dust it is washed in bucket No. 1 and rinsed out in bucket No. 2, changing both waters frequently. The object, of course, is to enmesh in the wet cloth every particle of dust and to transfer it to the water in the buckets. Three pieces of furniture are washed down in the same way and returned to the room. A hard unupholstered rocking chair, a hard straight chair, and an army cot. The hard straight chair often can be straddled by the patient with comfort. As long as the patient cannot lie down, freshly laundered cotton bed-clothes can be draped over the back of the hard rocking chair. If pillows are to be used, and they usually are, they are not to be of kapok or any other substitute for feathers but rather of feathers, properly enclosed in some material through which the feather-dust cannot escape. For the emergency if non-allergic pillow cases cannot be readily obtained, these pillow covers can be made of common kitchen table oil-cloth. With the fabric side out and coated side in, a pillow slip is cut out and the pillow is sewed in with double fine stitches. In doing this, it is of the greatest importance that the oil-cloth pillow slip be two or three inches wider in each direction than the pillow which it is to encase. In this way, the pillow can collapse with the pressure of the body without acting as a bellows and forcing the feather dust out into the room. It must be carefully watched that no dust ever escapes and so that cover should be inspected for tears, cracks, and other openings through which the dust may come out.

The army cot can be furnished with freshly laundered cotton bed clothes and linen. As many pillows as the patient requires, properly covered, can be supplied. If these cannot for some reason be obtained at once clean cotton blankets may be rolled into pillows for a short time.

After they have been carefully washed down, the windows are closed and kept closed. With the windows closed, the cooling of the room due to temperature changes in out door air especially during the night is avoided. These changes are often enough in themselves to precipitate an attack in the patient who is in allergic imbalance. Properly cleaned the window shades may be returned. After the heat register has been cleaned it should be closed tightly to prevent the entrance of smoke and dust from the furnace (many a case of house-dust asthma recurs when the furnace is lighted in the fall). Heat and ventilation are obtained for the room from the adjacent hall. Incidentally, this hall should be cleaned just as carefully as the patient's own room. Also it is important that the bath room which the patient uses should be cleaned up and kept free of cosmetics, perfumes, talcum, bath powders and all other dusts.

Another thing that must be watched is the humidity. In steam-heated homes, one often finds the rooms literally as dry as the desert. An inexpensive instrument can be obtained which will serve as a rough guide. Where the room air is too dry, an electric hot-plate or other household appliance can be brought in and used to boil water until more favorable conditions are brought about.

After a few days confinement to these quarters the uncomplicated case will usually improve. This trial can be undertaken by any patient at no cost or only a few pennies if the kitchen oil cloth is used.

In addition to relieving the patient, it has been proved that the victim has an inhalant allergy. Since most cases of asthma are due to one of these offenders, it should be tried in every instance.

This is one of a series of editorial summaries on the management of certain diseases.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

TUBERCULOSIS IN INDUSTRY

THE death rate among the unskilled workers is more than twice that of the skilled workers. Is this due to the industry or to lesser earning capacity? It is more probably due to the latter.

Is tuberculosis an occupational disease? An occupational disease is one that arises out of the occupation per se. There must be a definite relationship between the etiology of the disease and the occupation. The frequency of the occurrence of the disease in the occupation must be greater than the incidence of the disease in a similar group not so employed. A high frequency of tuberculosis in a particular industrial group may be due to the fact that the labor is recruited from a section of the city where tuberculosis is more prevalent than in other sections. Unskilled labor comes chiefly from those parts of the city where the tuberculosis death rate is high.

In a few definite groups only may tuberculosis be considered as an occupational disease. These groups include:

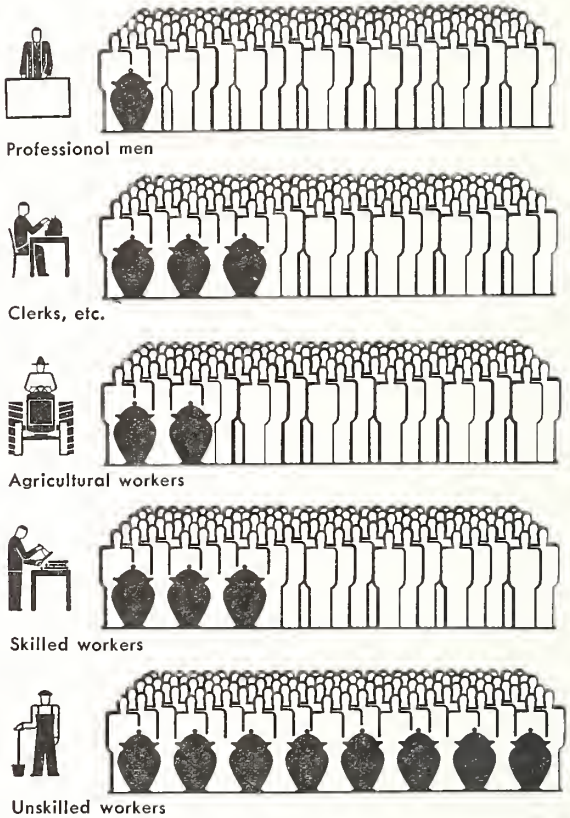
WORKERS CARING FOR THE TUBERCULOUS SICK—NURSES, ORDERLIES, ATTENDANTS, ETC.

The frequency of the occurrence of tuberculosis infection and disease among medical students and nurses has been noted by numerous workers. There can be no question but that the opportunity for exogenous infection of the lungs by the tubercle bacillus presents itself in the care of the tuberculous sick. At Sea View Hospital, New York City, X-ray evidence of pulmonary tuberculosis was found in 10 of the 1000 nurses during the period from 1930 to 1935, and 21 others developed lesions in the lungs while working in the hospital. Of the 10 cases which showed evidence of pathology on admission, 7 continued to work with either clearing or no change in the lesion; one broke down with a cavity and two did not start work. It is most important to note that while the incidence rate was low in the Sea View group (1 percent) the occurrence rate was high which indicates a definite hazard from an insurance standpoint. By contrast, the tuberculosis occurrence rate among employees of a large department store was found to be a small fraction as compared with that of the nurses group.

Similar studies made among medical students have tended to show an increased incidence of tuberculous disease among them, presumably due to their occupation which throws them in contact with the open tuberculosis cases.

In a great many general hospitals, the frequency of implantation of tubercle bacilli in the previously non-infected probationers has been almost as great as in the tuberculosis wards. Many cases of open tuberculosis are admitted to the general hospital for surgical and other forms of treatment. The tuberculous disease is not suspected

Occupation Influences Tuberculosis



Each urn: 25 deaths from tuberculosis per 100,000 workers in the age of 25 to 44 years.

and the nurse takes no precautions against exogenous cross-infection while she attends the patient. The contact may be a continuous one without the tuberculous disease ever being discovered. The nurse later breaks down with the disease. The question of whether the tuberculosis acquired in a general hospital is an occupational disease will depend a great deal upon the frequency of the admission of tuberculosis to the hospital.—George G. Ornstein, M.D., and David Ulmar, M.D., Quarterly Bulletin of Sea View Hospital, Vol. IV, No. 2, January, 1939.

Case Record Presenting Clinical Problems

Jaundice for Three Months in a 52 Year Old Man

HARRY L. REINHART, M. D.

A WHITE male, age 52 years, was admitted to the hospital with a marked and diffuse jaundice, "putty-like" stools, dark urine, intense itching, nausea and vomiting of approximately three months duration. His occupation was an engineer, although about 15 years ago he was forced to give it up, because of muscular weakness.

The onset of the jaundice was approximately three months before his hospital admission. It developed insidiously without colicky pains, digestive disturbances or nausea. As the intensity of the jaundice increased, intense itching developed and a constant moderately severe epigastric pain requiring sedation was experienced.

Physical examination: The patient was a 52 year old, Jewish white male, markedly jaundiced and emaciated, (weight 103 pounds). There were numerous abrasions and scars of the skin from scratching. Excepting the icteric staining of the skin and mucous membranes, the eyes, ears, nose, throat and chest revealed little evidence of any significant pathology. The abdomen was somewhat distended and tense. The liver, spleen and gall-bladder were not palpable and no tenderness was elicited in these areas. No masses were palpable in the abdomen. The lower extremities were emaciated, voluntary movement was difficult and the reflexes were absent. There was some weakness of the upper extremities, but voluntary movements were not impaired.

Laboratory investigations: The Hb. was 8.3 grams, the total erythrocyte count was 4.4 millions; the total leucocyte count was 5,300. The differential count revealed 62 percent polymorphonuclear leucocytes, 35 percent lymphocytes and 3 percent monocytes. The icterus index was 88.5. The direct Van den Bergh reaction was strongly positive and the serum bilirubin was 28 mg. per 100 cc., (normal 0.2 to 0.8 mg. per 100 cc.). Examination of the urine revealed the presence of bile pigment and urobilin. Otherwise the urinalysis was negative. The galactose tolerance test for liver function revealed an excretion of 3.1 grams in the urine in five hours, (normal excretion is less than 3 grams). The bromsulfalein test revealed 100 percent retention of the dye in the bloom serum in 60 minutes, (normal 10 percent retention or less in 30 minutes).

On the ninth hospital day an exploratory laporatomy was conducted with a provisional diagnosis of "carcinoma of the head of the pancreas". This diagnosis was confirmed at operation and due to the patient's condition a palliative cholecystostomy was done and a drainage tube was inserted into the gall bladder. During the following week approximately 1000 cc. of bile drainage was collected from the tube, the average drainage per day being about 130 cc. Although the jaundice gradually decreased, gaseous distention increased and nausea and vomiting occurred frequently. On the eighth postoperative day after a period of severe vomiting and retching, the pulse became irregular, poor in quality and finally imperceptible. The skin was cold and clammy, there was marked cyanosis of the finger tips and the patient expired.

Anatomic Diagnosis: (Autopsy No. 138-1371). Status post-cholecystostomy, marked emaciation, diffuse and intense jaundice, carcinoma of the head of the pancreas, constricting the common bile duct, moderate dilatation of common and hepatic bile ducts, recent abdominal hemorrhage, ascites, bilateral hydrothorax, moderate coronary arteriosclerosis, small multiple carcinomatous metastasis to the liver, bilateral senile arteriosclerotic nephritis, moderate edema of lower extremities.

The clinical problems manifest in the study of this case are those of the diagnosis of obstructive jaundice and its etiology, the relief of the obstruction for palliation or cure, and the prevention of the hemorrhagic manifestations which occasionally occur in patients with obstructive jaundice or biliary fistula. Recent clinical investigations concerning the liver function and various constituents of the bile have provided data and means for certain clinical laboratory tests which may facilitate a more accurate diagnosis and prognosis, a better understanding and the means for more rational management of patients with intense obstructive jaundice. A brief review of these developments as they pertain to clinical laboratory investigations will be presented.

Bile acids are perhaps the most characteristic constituent of human bile. They are specified products of the liver cells and decrease markedly with extensive liver cell damage. Such liver cell damage occurs in obstructive jaundice, and the decrease in bile acids is marked when the obstruction has existed for a week or longer. The interval of time between the release of the obstruction and the reappearance of the bile acids in the hepatic bile indicates roughly the degree of liver cell damage. In some cases the bile acids have not reappeared in the hepatic bile for three weeks or longer. Much information of considerable value in prognosis, may be obtained in patients with a biliary fistula, such as this one, by collection of the biliary drainage and analysis for bile acid content.

In the absence of bile acids, usually in the combined form as bile salts, from the intestinal tract, whether this absence of bile salts from the intestines is due to common duct obstruction, biliary fistula or extensive liver cell damage, vitamin K (so-called "Koagulation vitamin") is

This is the fortieth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

not absorbed from the intestines, and prothrombin is not synthesized by the liver. Gradually the prothrombin level of the blood plasma may be lowered to a state of acute deficiency and a hemorrhagic state may supervene with a fatal result as illustrated by this case.

This knowledge of the potentialities of such a condition may be obtained by the determination of the **plasma prothrombin factor.** When the prothrombin concentration in the plasma falls below 30 percent of normal the danger zone is present; when it falls below 10 percent of normal the hemorrhagic state is to be expected. The presurgical management of patients who have prothrombin content of the plasma below 30 percent consists of the administration of whole bile, bile salts and agents rich in vitamin K. The emergency treatment is blood transfusion, the effect of which may be dramatic but fleeting.

Bilirubin or bile pigment is another important constituent of the bile which has been extensively investigated by laboratory methods. Bilirubin is derived from hemoglobin and carried in the blood stream in a loosely combined or absorbed form which is not diffusible into the tissues and therefore does not produce jaundice and does not give a direct positive Van den Bergh reaction. Bilirubin is removed from the blood stream by the liver cells and excreted with the bile salts, as a part of the bile. When bilirubin reaches the intestines it is broken down by the action of putrefactive bacteria into urobilinogen which is then transformed to urobilin. Urobilin is therefore present in the stools of normal individuals, and absent from the stools of individuals with complete biliary obstruction. The urobilin is normally reabsorbed in the portal blood stream and carried to the liver where it is reconverted into bilirubin. With impairment of liver cell function this reconversion of urobilin to bilirubin does not occur and urobilin is excreted in the urine. The persistent presence of urobilin in freshly passed urine in significant amounts is therefore indicative of impaired liver function. As bilirubin must pass to the intestine for the formation of urobilin, urobilinuria indicates that although biliary obstruction may be present it is not complete. The quantitative determination of urobilin in the urine may therefore provide evidence of considerable value.

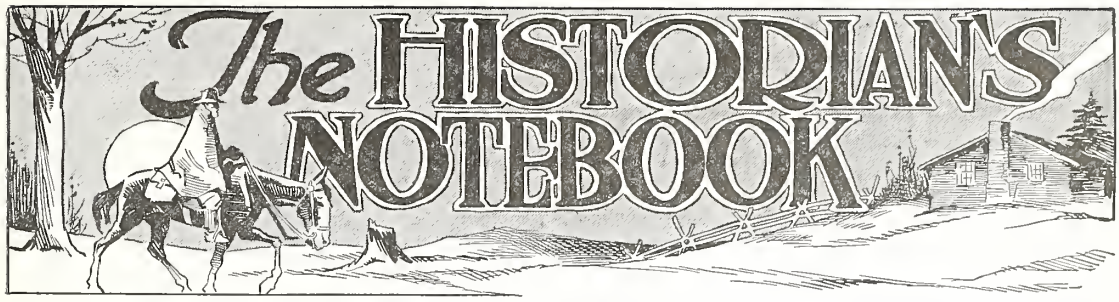
Bilirubin or bile pigment is normally present in the blood serum in a combined non-diffusible form in concentrations ranging from 0.2 to 0.8 mg. per 100 cc. The quantitative determination of serum bilirubin is the only true index of the degree of jaundice. This combined form of serum bilirubin is encountered most frequently in increased amounts in hemolytic jaundice and gives the so-called indirect Van den Bergh reaction. When obstructive jaundice exists bile salts and cholesterol are increased in the blood serum and they are apparently responsible for freeing the bilirubin from its normal combined form; the result is a free diffusible bilirubin, which gives a direct positive Van den Bergh reaction. There is also a quantitative elevation of the free serum bilirubin in obstructive jaundice, and this free bilirubin diffuses through the tissues giving them an icteric tint and appears in the urine, and body fluids in general, even occurring in the saliva and lacrymal secretions.

On the basis of the function of the liver cells in the extraction of bilirubin from the blood serum a liver function test has been proposed by Soffer to test the ability of the liver cells to extract and excrete intravenously injected bilirubin. The test is limited to conditions in which the serum bilirubin concentration is within normal limits. Otherwise it constitutes the "most delicate method known for testing the excretory functional capacity of the liver". The injected bilirubin is normally completely excreted in four hours.

The **bromsulfalein** liver function test is based on a somewhat similar principle, i.e., the ability of the Kupffer cells of the liver to extract a pigment or dye from the circulation and excrete it, the bromsulfalein being a foreign rather than endogenous dye or pigment. Following the intravenous administration of 5 mg. of the bromsulfalein per kilogram of body weight a retention of 10 percent or more in the blood stream after 30 minutes is regarded as evidence of impaired liver function. In the presence of complete biliary obstruction all of the dye remains in the blood stream. Under such conditions the test should not be interpreted as representing complete loss of liver function. As noted in the case history above there was 100 percent retention of the dye at the end of a 30 minute period as well as a one hour period.

The **hippuric acid liver function test** is based upon the well known detoxifying function of the liver. The test depends upon the ability of the liver cells to synthesize glycine which is united with benzoic acid by enzymatic action to form hippuric acid, the latter being eliminated quantitatively in the urine. Adequate renal function may be assumed if the blood urea nitrogen is within normal limits. A normal individual, after the ingestion of 6 grams of sodium benzoate, will excrete 3 grams or more of benzoic acid in the form of hippuric acid in the urine within four hours. This test was attempted in this case, but due to nausea and vomiting the patient was unable to retain the orally administered sodium benzoate. The formation of hippuric acid is impaired also in anemia, cachectic states, and chronic passive congestion of the liver.

The **galactose tolerance** test which in this case presented slight evidence of impaired liver function has not proved as reliable as the bilirubin, bromsulfalein and hippuric acid liver function tests in our experience.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

A State Meeting One Hundred Years Ago

LOUIS S. DEITCHMAN, M.D.

JUST one hundred years ago, Cleveland was host, for the first time, to the State Medical organization which was then called the Medical Convention of Ohio. The date of the meeting was May 14 and 15, and the place—Council Hall.

This meeting is historically important for several reasons:

1. It marks the inception of county medical organizations in Ohio.
2. Plans for a permanent state Medical Society were formulated here.

"A committee was chosen to report a mode of proceedings by which county medical societies and a state medical society may be formed".

"Committee met and recommended to the physicians of several counties in the state, to form county medical societies, and that a State Medical Society be organized by delegates from these societies".

The chair appointed committees for each county.

3. A National Medical Association was in contemplation and steps were taken for its organization.

"Communication received from the Medical Society of the state of New York asking for delegates to a National Medical Convention to be held in 1840 in Philadelphia. Committee to handle this matter appointed, and delegates to the Philadelphia meeting recommended and approved".

With one exception, this is the first time the State Medical Meeting was held during the warm season, all the others, eight in number, were held around January, probably because the roads were more dependable during the winter months. As Dr. S. P. Hildreth,* the retiring president, states in his address—there were practically no bridges and few roads at the time of the earlier meetings.

Dr. R. Thompson, treasurer, submitted his account, showing a balance in his hands of $7.68¾.

Committees appointed to examine and report to the next convention the truth and utility of animal magnetism.

A committee of three appointed to report at the next convention on the importance of auscultation and percussion in diseases of the chest. Apparently the work of Corvisart (based on the much earlier but little known work of Auenbrugger) on percussion, and Laennec's treatise on Auscultation, both innovations of 20 to 30 years standing, still required investigation and emphasis in Ohio. Skoda's book was in the press.

"The committee for the study of the use and abuse of intoxicating drinks in pharmacy reported that 'however desirable it might be deemed to exclude this article from the shop of the druggist, thus driving the Hydra Monster from one of its strongest fortresses, we are not prepared to say that its uses as a menstruum and excitant in low grades of action can be entirely dispensed with' ".

What a masterpiece of evasion, and couched in such flowery language!

The rest of the business was routine, not particularly important or interesting, except for the valedictory address of the retiring president, Dr. Hildreth, which is the high point of the meeting. This scholarly address contains so much earily medical and general history of Ohio, and the presentation is so masterly, that it should be printed in full. Unfortunately, due to limitations of space, we shall have to be content with excerpts.

It should be mentioned here that in those days the physician was something of an all around

The Author

● Dr. Deitchman, Youngstown, Ohio, is a graduate of the University of Pennsylvania School of Medicine, 1921; attending oto-laryngologist at Youngstown Hospital.

*In the December, 1938, issue of this journal is a fine biographical sketch of Dr. Samuel Prescott Hildreth by Dr. Donald Shira. For this reason the biography was omitted.

naturalist, and our early medical publications devoted much space to geology, botany, zoology, astronomy, meteorology, etc. The doctor kept records of the medical topography, the climatology and the diseases peculiar to his section of the country. These were collected and published or

JOURNAL OF THE PROCEEDINGS

OF THE

MEDICAL CONVENTION OF OHIO,

AT ITS

THIRD SESSION,

BEGAN AND HELD IN THE CITY OF CLEVELAND,

ON THE

14th and 15th days of May, 1839,

Published for free distribution, by order of the Convention.

CLEVELAND:

PENNIMAN & BEMIS, 16, CENTRAL BUILDINGS.

1839,

Author's Copy

presented at the various meetings. At this particular time Dr. Daniel Drake was the pacemaker for these scientific activities, and Dr. Hildreth's paper probably owed its inspiration to Dr. Drake.

That the paper is not a dry-as-dust statistical report, as most of these papers were, is due to the author's own personality and his beautiful style; he enlivens it with fine bits of description and interesting anecdotes, thus making it a very readable and in spots an absorbing document.

The subject is "The Climate and Early History of Diseases in Ohio" and is treated under the following headings:

1. Topography.
2. Climate and its changes from the effects of cultivation.
3. Diseases of the Aborigenes.
4. Diseases of the first white settlers and early epidemics.
5. Treatment of diseases thirty years since.
6. Recent epidemics.
7. Diseases common to this climate.
8. Closing remarks.

We need not dwell on the first two headings. The discussion of the topography and climate of the country on the Ohio River is altogether adequate and scientific. There are detailed descriptions of the flora and fauna, and meteorological statistics and climatic studies.

There is one passage, however, of such arresting beauty that it must be quoted.

"In October, and the fore part of November, we have delightful and serene weather, rivalling in its balmy and mellow state of the atmosphere, that of Greece and Italy. It is in fact, the most poetic season of the year. The various hues imparted to our forests by the advance of autumn, which daily changes and deepens their rich and gorgeous teints, when seen through the light mists of our "Indian Summers", gives a charming and romantic view to our landscapes, which few portions of the world can equal and none surpass".

DISEASES OF THE ABORIGENES

He notes that the tribes which lived on the low swampy grounds along the river, were liable to malaria and various intermittent fevers, also dysentery and diarrhoea, with a resultant high infant mortality and morbidity.

The aboriginal inhabitants were not exempt from destructive epidemics even before the white man came among them. In 1763, a fever broke out amongst the Indians of the island Nantucket, and out of 265 persons attacked, only 15 recovered.

"The small-pox seems to have been, and still continues to be, one of the most fatal diseases that ever visited the red men. The measles is a well known but usually not very fatal disease. Their treatment for both appears to have been the same—which was by placing the patient in a vapor bath, formed by pouring water over hot stones, and covering him with a blanket spread over boughs, beneath which he was placed. After sweating profusely, he was plunged into cold water. The treatment usually proved fatal in cases of small-pox, but might be useful in common intermittent, or an attack of inflammatory fever".

"Rheumatism is another disease to which they were very subject, especially the females, who performed the drudgery, and carried heavy burthens for long distances on their backs".

"From their using so little salt in their food, the young children often suffered from worms . . . Consumption and insanity were rare diseases among the aborigenes".

"It is melancholy to think of the fate which

awaits the red man, the native lord and owner of the vast domain now occupied by these United States! From time immemorial, his ancestors in a long line of descent, had paddled the light canoe along its hundred rivers, or followed the chase amidst its thousand hills, free as the air they breathed. The white man came, and in the brief space of two hundred years, numerous tribes and powerful nations have perished so entirely that nothing now remains of them but the name. The glance of his eye was death, and the breath of civilization was poisonous to the atmosphere of the savage. There has doubtless been an overruling Providence in this, and the whole conducted by the unerring laws of our nature—one of which is, that ignorance and the barbarian state of society must give way



SAMUEL PRESCOTT HILDRETH, M.D.

before knowledge, civilization, and the arts, and the darkness of night is dispelled before the morning sun. It is doubtless for the better good of mankind that these rich and fertile valleys, which could at most support but a scanty population of Indians, should be occupied by millions of a Christian people, where villages and cities could be built, and instead of the yell and the war-whoop of the savage, songs of praise and adoration ascend from a thousand temples erected to the honor and praise of Almighty God. Yet, notwithstanding all this real, and much apparent good, we cannot but still deplore the fate of this interesting people; and ever deprecate the injustice and cruelty of the whites towards this gallant and much injured race of men".

DISEASES OF THE EARLY SETTLERS OF OHIO

A large portion of the diseases originated in exposure to wet, cold, hunger and fatigue. Pneumonias and pleurisys were common in winter. There were many cases of ophthmalia.

Several serious epidemics are recorded. From 1790 to 1795 small-pox and scarlatina of malignant character were prevalent among the settlers of Bellepre, while confined in their garrisons on account of the Indian War. Some families lost three or four. The small-pox was rendered in a manner harmless by inoculation.

"To counteract the depressing effects of want and anxiety on the mind as well as the body, all kinds of athletic amusements were encouraged by the colonists amongst the young people, especially foot races, games at ball and dancing".

"Some of the young females had become so habituated to danger that nothing pleased them better than a sudden alarm that the Indians were about to attack them, as the confusion and bustle of such a crisis, gave a different train to their thoughts, and a relief to the sameness of a garrison life. This volatility of spirits, I have no doubt, preserved the early inhabitants from many attacks of disease and death".

There was an epidemic of malignant fever at Gallipolis in 1796. Also epidemic fever at Chillicothe and the valley of the Scioto River in the years 1800 and 1801.

"In 1810 and 1811 an epidemic of Rabies appeared amongst the dogs, wolves and foxes. Many domestic animals were bitten and died of Hydrophobia . . . In 1813, '14 and '15, typhus fevers were common in the summer and autumn . . . Pneumonia Typhoides, or "cold plague" was prevalent in 1815 and 1816. It proved very fatal in some parts of the state".

But the above were only minor troubles.

"We now approach the period of the great epidemic fevers which prevailed in the valley of the Ohio from 1821 to 1824. These fatal seasons will long be remembered in the annals of this portion of Ohio as the most disastrous of any since its first settlement".

"Unusual natural phenomena preceded and attended these epidemics. 1820 and 1821 suffered from unusual drouth. . . The rivers were low and the water stagnant. The shores were covered with decaying aquatic vegetation, exhaling noisome smells. . . . Many genera of insects abounded. The potato-fly was generated in such multitudes that a pint cupful could be gathered from a single hill of potatoes".

"Animalcula, peculiar to the human family, were generated in a wonderful manner; and an acquaintance of mine, of cleanly habits, who wore a flannel vest next his skin for a few days longer than usual without changing it, was much confounded and chagrined to find it thickly inhabited with lice".

"In September the country was overrun with myriads of grey squirrels. They travelled in armies and no obstacle checked their progress,

passing through or over dwelling houses and crossing the Ohio River by swimming".

"The first cases of the epidemic, generally typhoid, were attended with severe signs of malignancy such as petechia and glandular swellings, most generally of the parotids. If suppuration took place, the patient usually recovered, otherwise the disease was usually fatal".

Later in the summer, a severe epidemic of a disease which was apparently yellow fever began. This lasted, with intermissions, for several years.

The drouths were followed by heavy rains, bringing dysentery and remittent fever.

"Some estimate may be formed of the condition of the country, when it is stated that at the election for state officers, the county of Washington gave but three hundred and ninety votes, in place of the twelve or fifteen hundred usually polled".

These frightful epidemics continued for several years.

Between 1824 and 1838 there were no great epidemics, although there were many minor outbreaks of malaria and other fevers.

DISEASES COMMON TO THE CLIMATE

This section contains nothing unusual, but the author's curious ideas as to etiology of nervous diseases and consumption are interesting.

"Nervous complaints and consumption have increased many fold, within thirty years, and have chiefly arisen from the more luxurious and sedentary habits of the people, especially our females. The low price of factory cottons and cloths have banished the distaff, spinning wheel and loom from our houses, has without doubt largely contributed to this result. Formerly the greater portion of our clothing was made within our own dwellings, and the music of the spinning wheel, accompanied by the cheerful female voice, instead of the piano, could be heard in every house. The latter may please the ear for the moment, but no permanent result remains; while with the music of the wheel we have rosy health, vigorous and active frames, and garments to clothe the beloved ones of our own households, as well as the needy poor. It is sadly apparent that with the passing away of our domestic manufactures, there also departed a large share of the health, and much of the happiness of our females".

CLOSING REMARKS—THE PLEASURES AND PRIVATIONS OF PHYSICIANS

This part had best be given in toto.

"In bringing this long address to a close, I cannot but congratulate the junior portion of the profession and those who are to come after us, on the vast improvements which have been made in our roads and bridges, so greatly to the comfort of the country physician. Thirty years ago, such a convenience as a bridge was hardly known in the State. The streams and creeks were forded; and when high, crossed by swimming. The roads between the new settlements were mere bridle paths, and often indicated only by blazes on the trees. Our rides were long, as well as rough, often extending to thirty and forty miles. I well remember that one of the first calls I had, after coming to Ohio, was to visit a patient in Virginia, thirty-two miles from Marietta. The journey was performed chiefly in the night, by the assistance of a guide, through a dense forest, we passed but one or two clearings after leaving the Ohio river. The patient was very ill with an ascites and an anasarca. His friends had started to bring him to Marietta, for medical aid, but his strength failed on the way. I reached the miserable cabin in which he lay about midnight, and found him in articulo mortis. He died a few minutes after. There being no chance for sleep, and a clear star-light night, the last of October, I mounted my horse and commenced my solitary ride home. It being the season for wild game, many deer had recently been killed by hunters near the side of the path. This had enticed an unusual number of wolves, into that vicinity, to feed on the offal, and my ears were every few moments assailed by the howl of the wolf, or the sharp yell of the panther, within a short distance of the road. For defense I had nothing with me, but a stout riding whip, with a long lash which was occasionally cracked to enliven my weary horse and to keep up the excitement of my own weary spirits. No violence however was offered by the wolves, and by day-light I had reached the first cabin, a distance of sixteen miles, with a fine appetite for breakfast, on venison steak, a common dish at that day in every log hut. The remaining portion of the ride was performed by the light of the sun, and without further adventure".

"As a sample of the hardships which attended the practice of medicine in Ohio, thirty-five years since, I will mention the name of one of my earliest and most intimate friends, Doctor John Baptiste Regnier, who commenced the practice of medicine, three years before I came to Ohio, in a new settlement, ten miles from Marietta. It was a hilly, broken country, on the waters of Duck creek, entirely destitue of roads. Being then poor, with a small family to maintain, he was unable to purchase a horse, but carried on an extensive business on foot. Possessed of a buoyant spirit, with a young and active frame, journies of ten or fifteen miles were performed with as much rapidity as is usually done on horse-back. This mode was continued for one or two years until he was able to own a horse without running in debt for it. Strange as it may seem, I have often heard him say in after and more prosperous days, that he looked back to this period as one of the happiest portions

of his life. He soon acquired a large practice, moved into Marietta, and was the most intelligent, popular and successful physician in that portion of Ohio. Although born and educated in Paris, he was blessed with a disposition that accommodated itself to any and every situation in life. To manners the most bland and affable, was united a kind and benevolent heart, to which selfishness, that bane of charity, was a stranger. With such feelings and accomplishments, no young man can fail of success in the practice of medicine".

"Whoever pursues the healing art, with any desire of eminence, must, like the Knights Templars of old, be a sworn and devoted friend to his profession, or will he prove a recreant. He is no longer master of his own time, nor of his own person, but his time and himself are at the call of another. If just seated at the table to enjoy the pleasures of social intercourse with his friends, or has placed his head on the pillow, after the weariness and watchings of two or three successive nights, and in the midst of a refreshing sleep, he is liable to be called at a moment's warning from the enjoyments necessary even to animal existence. The constant anxiety which attend the mind of a feeling man, when loaded with the responsibility of several valuable lives, as is often the case in sickly seasons, is one of great weight, and also assists in shortening the lives of the physician. The regret and mortification which follows his unsuccessful cases, and the wisest must have more or less of them, even when he cannot look back to any error of prescription or practice, adds another bitter item to the long catalogue of his troubles. The want of regularity in his meals and his sleep, with the incessant fatigue attendant on his duties, have placed longevity of the physicians the shortest in the list of the learned professions by about ten years. The life of a physician is, in many respects, as my friend Regnier once said, when greatly vexed at the complaints and ingratitude of a patient, 'a dog's life any how', and yet the most of us would be very unwilling to change it for that of any other".

"But let us glance at our vocation in a more favorable light. Although the life of a physician is surrounded by so many trials and privations, it is still also accompanied with many pleasures and consolations. Who would exchange for money the grateful glance, the confiding aspect of the distressed? Or the unlimited confidence placed in the opinion of the physician by the friends of the sick? His looks, his motions, are watched with the greatest anxiety, as if on them hung the fate of the patient. The responses of no ancient oracle were ever more implicitly believed by its votaries, than those of 'the old and well tried doctor,' within the circle of his practice. Life or death, often truly hang upon his lips; and many a patient whom his despairing friends had consigned to the grave, has been rescued by the inspiring hope, infused by the confident assertion of the physician. In several diseases, hope is one of the most potent remedies, and wisely was it placed at the bottom of Pandora's box, as a specific for numberless ills".

"If the country physician has many trials and privations, he has also numerous sources of enjoyment. In his solitary rides, he is not alone, but the voice and the smiling face of nature salute him on every side. During the spring, as he traverses the woodlands and prairies, he can collect for his herbarium the choicest gifts of flora, and select many medicinal plants as will be useful in diseases. In the summer, endless species of insects, offering the most charming specimens for his entomological collection, cluster around him and beset his path on every side. Many of the most rare and beautiful in my cabinet were gathered in my country rides. Has he a taste for conchology, various species of land shells are strewed along the way; and in every rivulet he crosses, the open valves of the muscle, with its rich tints and pearly luster, invites him to choose its most valued varieties. In autumn the hillsides and the beds of streams offer continual subjects to exercise his skill and geology; and during the clear frosty nights of winter, the sparkling stars and heavenly constellations afford the sublimest views for his contemplation. But above all, the pleasing thought that he has been the blessed means of rescuing a father, a mother, or a child of some distressed family from the grasp of death, must ever remain his richest compensation; to be prized far above gold, however necessary it may be to our wants, and is his best if not often his only reward, for many a long and weary ride, and many a sleepless night".

"Gentlemen, accept my thanks for your patient attention, and my best wishes for your individual welfare; and that you may long continue to enjoy annual and happy repetitions, of the Ohio Medical Convention".

In reading the closing remarks one envies the author the strong faith in his profession and his clear cut philosophy of life. They are so beautiful in their simplicity! One feels that, in spite of hardships, his problems were not particularly complicated, and that the good doctor achieved a serenity of spirit and an inner harmony with his environment.

Then there is that deep communion with nature, perhaps the result of solitary sick calls on horseback through virgin country. Alas, fast motor cars and concrete roads are not conducive to contemplation. And so, when we boast about our achievements, during the century since the paper was read, let us be humble. For though we have gained much, we have also lost much.

A Good Offense Will Be Our Best Defense

BARNEY J. HEIN, M.D., Toledo, Ohio
(Address of the Retiring President)

MORE than once, gentlemen, in a life rich in the priceless blessings of many friends have I been placed in the position in which no words seem adequate to express the feelings in my heart and so it is with me now. The privilege of being the President of the Ohio State Medical Association is one I will always cherish, and this honor will be something, as years advance, I will look back upon with increasing appreciation and grateful pride. The opportunity of working with, and for, this Association has been a real pleasure. It has been marked by the utmost cooperation on the part of all the members. This willingness to cooperate and this readiness on the part of each and every member to assume his part of the task has been responsible for any success which we might have attained. For all this, gentlemen, I thank you.

This last year has been one of unusual activity in the Ohio State Medical Association. Besides the usual old problems, some of which have been accentuated, we have been confronted with some newer ones. All have demanded, and have been given, thoughtful consideration.

WHAT OF THE FUTURE?

Never before have the economic and sociologic phases of the practice of medicine received so much consideration. You have all wondered just what the future has in store for the doctor; how some of these changes will affect his practice; what is going to become of the increasing amount of indigency; what are we going to do with the fellow who isn't making enough to pay his bill; and just how far is governmental control going to be exercised over the practice of medicine. These are all pertinent problems and should merit our closest attention today. Scientifically, medicine has made tremendous progress. Its history is the story of continuous advancement and improvement since the beginning of time, a glorious record of achievement and service to which we all can point with pride. But new discoveries have brought forth new problems. Effort in the past has been largely individualistic and as doctors we have not always been able to see beyond the horizon of our own practices. As great masses of our people began to concentrate in industrial centers, problems such as housing, sanitation, protection of food, water and milk supplies, etc., arose, calling for centralization, coordination and cooperation among the various forces waging the battle against disease. Individual effort has been gradually replaced by mass effort and individual responsibility has given way to social responsibility. In many instances we were too slow to accommodate ourselves to the new situation, and non-medical groups frequently led the way in matters pertaining to health. So today we are faced with these facts, namely: An improved product in the way of medical service, which we have to offer, with inadequate plans for its distribution to the public. This inadequate distribution of medical service is the underlying problem of all our difficulty today. How can we keep the best medical practice open to all persons and still maintain the high standard of practice in our state? How can we solve this problem without sacrificing any of the high ideals which have motivated medicine in the past? How can we preserve the physician-patient relationship, so necessary to successful practice?

As we view this present situation we find our own profession, like all Gaul, divided into three parts: There are those who feel that no change is needed; there are those who are not opposed to reasonable changes, if they will improve the situation; and, finally, there are those who would welcome a radical change, i. e., a new order of things. Your State Association and your Council feel that the vast majority of our members are not opposed to reasonable changes made to meet present conditions, changes made in the best interest of patient and profession alike.

THREE VITAL QUESTIONS

At present there are three questions which are receiving an unusual amount of attention wherever physicians assemble. They are: (1) Furnishing of adequate medical service for the indigent; (2) provision of better methods of providing adequate medical care for the low-income groups; and (3) proposals which have been offered to revamp the present methods of distributing medical care and expand public health services. I know you are interested in these questions, so permit me to discuss them briefly.

MEDICAL CARE FOR THE POOR

Previous to the "great depression" the problem of furnishing medical care to the needy was not great—at least it was not considered a seri-

Address of the President delivered at the First Session, House of Delegates, Ohio State Medical Association, Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

ous problem. The needy were supplied with necessary medical care by individual physicians as a part of their regular practice. With the help of voluntary charitable organizations in many instances, this demand was met without any undue financial sacrifice by the individual physician. Some medical relief was furnished by local subdivisions. The depression changed the picture. With the increasing amount of medical indigency, the physicians found that they had to look somewhere for financial assistance. As time went on, treasuries of local political subdivisions were drained and it became necessary for them to seek financial aid from the state and the Federal Government. In many instances, the financial assistance received from all sources has been entirely inadequate and physicians have been rendering an increased volume of service for little or no remuneration.

The problem of adequate and practical methods of financing and administering medical relief in Ohio is one of the important subjects before the Ohio State Medical Association. Information obtained from many counties shows that funds for medical relief are insufficient; there is a need for reorganization of administrative machinery; there is duplication in relief activities; overlapping of authority and responsibility; waste of effort as well as money. A new set-up is needed. Medical relief must be recognized as being as much a part of general relief as food, clothing, shelter, etc., and adequate provision must be made for financing it. Our Association is attempting to lead the way and eventually its efforts will result in legislative action to correct and improve the administration of medical relief in Ohio.

SERVICE FOR LOW-WAGE GROUPS

The second question which is commanding the special attention of the Ohio State Medical Association is the improvement in methods of distributing medical care to the low-wage group. This is not a new problem but it has been accentuated by certain events and the prevalent social unrest.

We recognize that there is a problem and that efforts have been made to solve it. We believe that these efforts should be initiated and supervised by the medical profession through its constituted medical societies. No one understands more about the ravages of disease and injury than the physician; no one has been more sympathetic. The medical profession has a deep and sympathetic interest in the problems of the low-wage earner. It is aware of the crisis which he faces when sudden illness or injury strikes him or some member of his family. We stand ready and willing to help him.

Many plans are being tried throughout the country in an effort to solve this very problem. In our own state there are four or five such plans being worked out under the control of the local medical society. Some plans which have been started have failed; others are working fairly well. Eventually valuable information will be obtained on which a skeleton plan can be based, which can be offered to local medical groups for local adaptation. It is essential that we move cautiously to avoid the evil practices which have accompanied some of the programs put into effect, and which are inherent in some of the proposed plans. There must be an educational campaign aimed at acquainting the people with the value of their health and with the evils of bargain-counter medical service.

GOVERNMENT-CONTROLLED MEDICINE

Let us pass to the third question which in a way includes the two already referred to. There has been introduced into the legislative hopper at Washington during this past year, a bill proposing to expand the activities of the Federal Government in the fields of public health and medical care. The basis of this measure undoubtedly was the report recently issued by the Interdepartmental Committee appointed by President Roosevelt several years ago. Time will not permit a detailed review of proposals made by that committee. However, a few general observations and statements are in order.

First, I am of the opinion that the medical profession generally is in agreement with some of the proposals offered. The profession, in my opinion, will not, and should not, object to a reasonable expansion of public health activities provided administrative procedures are delegated to local communities, and provision is made for cooperation of local medical societies, and provided services contemplated do not include the treatment of disease except in so far as this cannot be successfully accomplished through the private practitioners of medicine. Expansion of hospital facilities where need exists is a suggestion of merit. However, I believe that the profession would favor financial aid for existing hospitals and related institutions for the hospitalization of the indigent or near-indigent before a building program is launched which, incidentally, might become unnecessary if full use is made of present hospital facilities. No objection could be raised to financial aid on the part of the Federal Government to local communities for the purpose of improving medical services for the indigent and reimbursing physicians for their services but administration must be left to local hands. There are other parts of the proposed "national health program" which would, I believe, have the support of the medical profession generally.

LOW STANDARDS; POOR CARE

However, I am convinced that the medical profession will not favor or foster any system of

compulsory health insurance or any other plan or program which would create political and governmental domination of the practice of medicine. Bureaucratic systems of medical service produce low standards and poor medical care. Governmental interference and supervision must be kept at a minimum. Governmental medicine as practiced in many European countries has been appraised and we know too well that such systems have produced few, if any, benefits but many evils. Governmental medicine invariably leads to standardized medical mediocrity. It does not set standards of practice but always has been a poor follower.

The medical profession feels that the welfare of the public is something which always must be recognized and regarded as an item of prime importance. Physicians must strive to maintain the high standards of practice existing in our state. We cannot sacrifice any of the high ideals which have motivated medicine in the past. Ideals and standards can be maintained and good medical care provided under the present system of physician-patient relationship and the principle of free choice of physician for all. There is a line across which government, for the good of the people, should not step. If government performs efficiently the duties which are recognized as rightfully the functions of government, it will have its hands full. There are many fundamental problems waiting to be solved. For example, imagine the good which will come from well-coordinated programs for the improvement of food, housing and the other environmental conditions which have the greatest influence on the health of our citizens. Good medical care for all is essential but less medical care will be needed if conditions which cause illness and injury are attacked, and some of the economic problems which confront the low-wage groups would automatically be solved. This condition of economic dependency on the part of so many of our citizens cannot be cured in medical dispensaries. It is a sociological problem whose solution is of far more importance than any medical effort that we as doctors could contribute towards its solution.

PERTINENT STATISTICS

Permit me to quote from the reports of the recent National Health Conference. "There are in the United States today probably 40 million persons—almost one-third of our population—living in families with annual incomes of less than $800.00. Current studies on the cost of living indicate that this sum supports the average family of four persons only at an emergency level, and leaves a margin for the purchase of medical care at the risk of deprivation of food, clothing, shelter and other essentials equally necessary for the maintenance of minimum standards of health and decency. Included in this group, as of April, 1938, is an estimated total of 11 million persons in families on work relief rolls, six million in families receiving general relief and three million wards of the government under the Social Security Act—almost one million dependent children with their mothers, about two million recipients of old age assistance, and 55,000 dependent blind persons. This group, comprising a total of over 20 million persons, is dependent on government for food and shelter, and similarly dependent on public funds or private philanthropy for medical care. In the emergency of sickness, some 20 million persons in the marginal income class above the relief level, otherwise self-sustaining, become dependent on public aid for the provision of medical care."

This is not the doctor's problem. It is the problem of all the citizens of the country, but as good citizens the doctors have a right to be interested in it. Don't let anyone try to cover up the real issues by a criticism of the physicians.

MEDICINE TAKES THE INITIATIVE

And so as this past year opened, we were confronted with the foregoing problems, old in respect to time, but activated by general economic conditions and receiving considerable attention by certain non-medical groups. Was the Ohio State Medical Association to sit passively by, and allow other groups, often under political domination, to attempt to solve these problems in which we as physicians play such an important role, or were we going to try to solve these problems ourselves? Were we going to lead the way as we have done before, or were we going to be led? Your Council chose the former course and at a memorable meeting in July, 1938, it ordered "full steam ahead" in an effort to blaze the trail. Laissez faire was taboo. At that meeting the Council authorized me to appoint a special committee "to study factual data, which would involve the health of the public with instructions to report its findings to the Council and to immediately submit recommendations on ways to inform the public regarding the findings of the committee". The name of this committee was afterwards changed to "Coordinating Committee" for the sake of brevity.

Implied in this action of the Council were instructions to the special committee to analyze proposals which had been submitted or were to be submitted to the national administration; to study proposals originating from within the ranks of the medical profession; gather data bearing on the health and medical problems of the public; review present policies of our own Association and similar societies; and present its findings and recommendations

to the Council. In other words it was to be an unbiased study of important phases of the acute situation which had arisen. There was to be no red-tape. Action was imperative, and on August 1, its first meeting was held when definite lines of procedures were formulated and actual work started. This committee originally consisted of five members under the chairmanship of our President-Elect, Dr. Parke G. Smith. The members were chosen, not particularly because they agreed with the Council in all respects, but because of their unusual interest in the particular subjects to be investigated. Since that time two other members have been admitted to it. Obviously the work of this special committee dove-tailed somewhat with the activities of the Sub-Committee on Legislation. However, the committee drove quickly to the heart of the problem; realizing that time was an important factor.

SPECIAL COMMITTEE'S AGENDA

The following subjects were immediately considered: (1) Plans were studied for better protection to the public against the hazards of health; (2) ways and means of organizing and launching a Public Educational Program whereby information assembled by the sub-committee and action and policies of the Ohio State Medical Association might be disseminated; (3) the study of material involving the basic economic principles underlying the incidents of disease, such as food, housing, environment, etc., and data comparing mortality and morbidity of the U. S. with countries where systems of state and socialized medicine are in operation, as well as information pertaining to the influence of medical services on the incidence of morbidity and mortality; (4) to assemble data pertaining to probable costs of program or programs of state and socialized medicine; and (5) to assemble information on and to analyze the present availability of hospital insurance coverage.

An emissary in the person of our President-Elect visited the American Medical Association Headquarters for the purpose of acquainting them with our determination to cope with these problems. They wished us well.

After a survey of the problems confronting our profession today, and particularly those local problems, this committee felt that two steps were urgent: first, the establishment of a public relations program; and second, the formulation of a model plan of medical service for the low-wage group.

MALICIOUS PROPAGANDA HARMFUL

The propaganda which has been disseminated during the past year or two by persons and organizations having either sincere or ulterior motives, has had a rather serious effect so far as the relationship between the medical profession and the public is concerned. Those of us who have had an opportunity to confer first hand with representatives of various organizations, governmental units and members of the legislative bodies have sensed an underlying feeling, not of resentment, but of dissatisfaction, with some of the policies and activities of the medical profession. Among some groups we get this reaction: "The medical profession has been a bit too smug, a bit too self-satisfied and a bit too unyielding to pleas that it take an active part in attempting to solve some of the economical and social aspects of illness and medical care". At the same time, we find that there are too many individuals who are extremely critical of the medical profession genreally, simply because a very few members of the profession have failed to live up to the principles of medical ethics or have failed to provide the kind of medical care which the profession is capable of rendering and to which the public is entitled.

Specific examples could be cited. However, it seems to me as if this general statement of the situation is sufficient to indicate that there is a serious need for a public relations program by the profession which will offset the insidious propaganda now being fed to the public; which will restore confidence of all groups in the medical profession; which can be carried on within the ranks of the medical profession itself in an effort to clean our house and assure all persons of competent treatment at the hands of physicians; and which will provide the public with accurate data on medical and health subjects. Unless we do this very thing, conditions, so far as the profession is concerned, are bound to become even more acute. We cannot ask and expect to receive consideration from the public and from governmental units unless we prove to both beyond a shadow of a doubt that the medical profession deserves those things which it requests. Many of our citizens have explicit confidence in their medical advisers. On the other hand, there are many who have become skeptical and who believe that the medical profession is becoming too commercial in its activities. In my opinion, there is a happy medium which must be followed by the medical profession. We must restore confidence by rendering even better service than we are rendering today and by educating the people to a sympathetic understanding of our problems and the whole problem of distributing medical care. We are taking the progressive point of view here in Ohio. The public should be informed of our program and anticipated activities. This should be the most important item on the agenda of the Association during the coming year. A good public relations program will

restore the medical profession to the position which it once held in the public eye and will have a tendency to alleviate many of the complications which have developed and which are retarding our programs.

PUBLIC RELATIONS PROGRAM NEEDED

Accordingly, the Committee on Public Relations and Economics assisted the Council in formulating the expansion program which will be presented at this meeting to the House of Delegates for action. This will provide ways and means for the formation and operation of an effective public relations, or public education, program by the Ohio State Medical Association. We believe that the medical profession has been too reticent in presenting accurate information and the views of the profession to the public at large. Give the public the facts. This new department as it expands will be under the direct control of the Council and our Executive Secretary. This set-up, we feel, is ideal as it keeps the complete control in our hands. As this department expands added personnel will be needed.

Public relations activities have been started already on a small scale. A pamphlet entitled "Compulsory Health Insurance Is Not The Answer", in which the evils of government-controlled medical programs were cited, and a review of the constructive programs now being carried on by the medical profession was presented, was published shortly before the first of the year by the State Association. Each member of the Association was furnished with a copy of this pamphlet at the time his 1939 membership card was sent to him. To date 6,200 copies of this pamphlet have been distributed to individual members, to county medical societies, and other interested individuals and organizations. Also, with the approval of the Council and this committee, a leaflet entitled, "A Question Which Every Citizen of Ohio Must Answer! Do You Want Your Own Doctor . . . or the 'State Doctor'?", was published and made available to members on request for distribution to patients and friends. So far, 26,600 of these leaflets have been distributed and requests for the leaflets are filed almost daily with the State Headquarters Office. This activity merely is a small example of what can and should be done on a larger scale to acquaint members of the profession with acute problems and to present the viewpoint of the medical profession to the people of Ohio.

Permit me to quote from the annual report of the Committee on Public Relations and Economics: "The medical profession needs the support and confidence of the public. The public needs accurate information and competent advice. It is the obligation of the medical profession, through its constituted medical societies, to supply the public with proper information and advice. If this is done in an efficient manner, the public will benefit and, in the long run, the profession will benefit. Proper public relations, in the opinion of your committee, is an item of first importance on the agenda of the Ohio State Medical Association".

GROUP MEDICAL SERVICE PLANS

The second recommendation of the Coordinating Committee was that the question of establishing group medical service plans for low-wage earners be considered. It was agreed that the State Association would attempt to set up a so-called "model plan" based on certain general sound principles and involving general procedure to serve as a guide for local groups of physicians wishing to establish a medical service plan locally, if needed and desired by the local medical profession.

Assisted by competent legal counsel, a subcommittee headed by Dr. Fred Douglass of Toledo conducted a study of many medical service plans now in operation or contemplated throughout the country. After much deliberation, general principles were evolved, as well as a general outline of administrative procedure. These have not, as yet, been perfected and there are certain legal problems still to be solved. Splendid pioneering has been done, and in one or two urban centers plans in line with the general principles which I have referred to have been formulated. How soon such plans can be put into operation will depend on local conditions, the solution of the legal problems, and the degree of active interest manifested by members of the medical profession. Incidentally, intensive missionary work among the physicians of the state is needed. In some communities physicians have displayed very little, if any, interest in such programs; and in others, physicians have been skeptical, fearing this particular type of collectivisim.

In the final analysis, it is up to the medical profession of the state to decide whether or not it desires to take this method of trying to meet the medical and health problems of the low-wage group. Such programs may not be needed in many sections of the state but badly needed in others. The profession as a whole must look at the problem from the standpoint of whether group medical service, under the control of the medical profession, will be beneficial to low-wage earners and their familiies and will answer the growing demand for more adequate distribution of medical services, and will forestall further invasion of the field of medical care by government. The Coordinating Committee believes that group medical service plans should be established in certain strategic points on an

experimental basis in order to try to find an answer to these questions.

MUST PLAN CAREFULLY

We have encountered some temporary setbacks but we should not be discouraged. We should go forward with our plans to determine whether we are right or wrong. We should proceed cautiously and plan carefully. We have found that there are many among our own members who are confused and who do not understand what we are attempting. Therefore, it seems to me as if the next step is to initiate a program of education among the membership, in order to establish, so far as possible, a united sentiment in favor of experimentation in providing medical service for those of the low-income group through voluntary prepayment plans.

SOME OF THE YEAR'S ACTIVITIES

In reviewing some of the activities in which we have engaged during the past year, it seems to me that the following are worthy of brief mention:

A real postgraduate educational program, reviewed in detail in the annual report of the Committee on Education.

Better pre-election activities than ever before. This had its effect on the candidates and gave us reasonable assurance that the interest of the profession and public health, generally, would be protected in Ohio and in Washington. The Legislative Conference last Fall was instructive and beneficial.

Participation in the A.M.A. Study of Medical Care.

Activities of the Committee on Poor Relief. A good start on this big question was made. This committee should be continued to stimulate interest on the part of all county societies and to offer constructive suggestions when and if Ohio decides to change to a new method of handling the poor relief problem.

Conferences held with such organizations as the Farm Security Administration, Division of Public Assistance, Parent-Teacher organizations, etc., on medical and public health questions. Advice and information were furnished these groups and others to guide them in their programs. In most instances the advice of the State Association has been followed.

Through the Speakers Bureau of the State Association and cooperation of the officers of the State Association, the Association was able to assist the district societies in presenting constructive and interesting programs.

The Ohio State Medical Journal continues to improve. New features and departments have been added to *The Journal*, making it of increasing interest and value.

More field work has been done during the past year by members of the Council than in past years. This has been beneficial to county medical societies, as well as to the Council as a whole. There appears to be more harmony and unanimity in the relationship between the county societies and the State Association now than ever before.

The Council has worked out a redistricting recommendation for the Councilor districts in order to improve the efficiency of the field work of members of the Council and to provide more county societies with representation on the Council. This program will be voted upon by the House of Delegates at this meeting.

The State Headquarters Office has increased its services to the membership, individually and collectively.

Efforts have been made to keep in closer touch with developments at Washington through correspondence with members of Congress from Ohio and through information obtained from special reporting services at Washington.

Conferences have been held with members of the Industrial Commission and employes of the Commission at which important medical questions have been considered and suggestions made for improvements in the rules and regulations covering medical care and in the fee schedule.

PRESENT INTEREST ENCOURAGING

Never in the professional lives of any of the members assembled here today has the Ohio State Medical Association stood for so much and never has it been so willing to assume its responsibilities in the solution of the present-day problems which face the physicians of Ohio and our nation. It truly has been on the offensive in trying to cope with the social-economic problems of medicine.

Our Association is indeed fortunate in having such an efficient and well-organized executive force in Columbus. Without their faithful and understanding services this work could not have been carried on. Only those who have been actively engaged in the work of the State Association, fully realize the time and effort which have been expended by officers and Councilors, committee members and our Headquarters Office staff.

CHALLENGE OF THE FUTURE

So in closing may I say that as individual physicians and as a group we must recognize that we have very important problems to solve. We must look beyond the confines of our own small spheres and practices and view these responsibilities in the light of state-wide and nation-wide activities. This responsibility we must assume. As physicians we must insist upon maintaining the high standard of medical

practice in our state. As physicians locally we must take an active interest in all matters pertaining to the health of our community. Our education and our experience fits us to lead the way. We should be alert to all economic changes. We must acquaint ourselves with the programs and activities of local lay organizations interested in public health and guide such activities. Passive resistance on our part to objectionable things affecting medical practice is only a slow form of professional suicide. The time of endless protesting on the part of medicine is over. If possible, we must find the answers to all these medical questions and apply them. We must show the public we are interested in the question of proper distribution of medical service, and that organized medicine is definitely on the offensive for more adequate distribution of its services. We must insist that the best medical care should be made available to all persons. As physicians we must be the first line of defense against disease and the protection of public health. As physicians we must cooperate with our health departments in the advancement and protection of the health of our citizens. We should convince health officers that maximum efficiency cannot be attained without the fullest cooperation of the medical profession. Through our medical organizations we must maintain a unity, for only by solidarity can we deal realistically with these problems. Through our medical organizations we must insure continued advancement of the science of medicine and see that the control of medical service remains in our hands.

Union District Medical Society Met at Eaton, April 27

The One Hundred Forty-Second Semi-Annual Meeting of the Union District Medical Association was held at the Court House Auditorium, Eaton, Thursday, April 27. At the morning session, Thomas A. Hendricks, Indianapolis, Ind., executive secretary, Indiana State Medical Association, spoke on "State and Federal Medicine"; and Dr. Harry P. Ross, Richmond, Indiana, discussed "Value of the Electrocardiograph in Everyday Practice". An informal discussion of group hospitalization plans followed luncheon at the Congregational Christian Church. Speakers at the afternoon session were: Dr. Clyde E. Shinkle, Cincinnati, "John Smith, D.P. (Dementia Praecox)—His Shock Treatments"; and Dr. Robert M. Dearmin, Indianapolis, Ind., "Otitis Media and Mastoiditis—with Special Attention to the Newer Treatment of the Complicating Meningitis". The program was arranged by the officers of the Association, Dr. H. A. Moore, Oxford, president; Dr. Mildred White Gardiner, Middletown, vice-president, and Dr. P. W. Blossom, Richmond, Ind., secretary-treasurer.

Osteopaths' Bill in New York is Vetoed By Governor Lehman

A bill passed by the New York Legislature which would have granted osteopaths broad additional powers has been vetoed by Governor Lehman of that state. In killing the proposal which would have permitted all licensed osteopaths to use instruments for minor surgical procedures, to adminster anesthetics and antiseptics, and to prescribe narcotics and biological products, Governor Lehman pointed out that many of the osteopaths now in practice were licensed prior to the time when that school of practice recognized the value of surgery and drugs and before even limited instruction in surgery and drug therapy, as provided today, was given in osteopathic schools. The following paragraphs are quoted from his veto message:

"The additional authority now asked by osteopaths may be far-reaching in its effect. A minor operation if not properly performed, I am advised, may be more serious in its effect upon the patient, than some of the so-called important operations. The administering of drugs and biologicals where there is not sufficient training and experience with regard to their effect on the patients may lead to serious ill effects. * * *

"In my opinion legislation should provide that applicants for licenses and those who already hold licenses as osteopaths but who now desire additional powers should be required to satisfy the Board of Regents either by submitted credentials or by examination that they have the proper instruction and training in surgical procedure and drug therapy to justify the granting of the additional powers set forth in this bill."

Annual Reunion of Cincinnati Medical Alumni Scheduled for June 10

The Annual Reunion of the College of Medicine of the University of Cincinnati will be held on Saturday, June 10. Dr. Robert Kotte, president of the alumni association, and a committee are in charge of the program for the day. At 9:30 A.M., grand rounds will be made on the surgical service with Dr. Mont R. Reid in charge; the pediatric service with Dr. A. Graeme Mitchell in charge, and the medical service with Dr. Marion Blankenhorn in charge. A banquet will be held at 7:00 P.M. at the Netherland Plaza Hotel. The principal speaker will be Dr. Carl A. Wilzbach, commissioner of health of Cincinnati. The 1939 Reunion has been affectionately dedicated to Dr. J. C. Oliver. Dean Alfred Friedlander will present the graduating class which will be inducted into the alumni association with suitable formality.

The President-Elect

BY unanimous vote, the House of Delegates at the Ninety-Third Annual Meeting of the Ohio State Medical Association, May 3 and 4, 1939, at Toledo, elected Dr. William M. Skipp, Youngstown, as President-Elect, succeeding Dr. Parke G. Smith, Cincinnati, who took over the presidency of the Association during the Toledo Meeting.

In selecting Dr. Skipp, the House of Delegates adhered to the sound policy that the medical profession, especially in these uncertain and troublesome times, needs and must have efficient and conscientious leadership and farsighted leaders possessing a knowledge of the intricate problems confronting medicine, the courage of their convictions, the energy and desire to lead, and a fund of experience on which they may draw for guidance.

Born in Pittsburgh on April 10, 1893, of English and Welsh descent, reared on a farm near Youngstown and educated until the time he entered college in the Coitsville public schools and Rayen High School, Youngstown, William Marshall Skipp can claim the distinction of having been educated in the school of hard-knocks and of having won his spurs in medical organization by his willingness to assume responsibilities, do the job assigned to him and give every ounce of his energy to the task undertaken.

Following the death of his father in 1913, Dr. Skipp became the chief wage-earner of his family, consisting of his mother and younger brothers and sister. Incidentally, his mother has lived to see her son receive the highest honor which the medical profession of Ohio has to confer on one of its members. While attending high school, Dr. Skipp sold newspapers and financed his college education by working in the steel mills and with road building concerns.

Dr. Skipp attended Ohio State University, graduating from the College of Medicine there in 1918. While in college, he was student assistant in anatomy and clinical diagnosis and externed at Mt. Carmel Hospital, Columbus. Following his internship at the Youngstown Hospital and service with the Medical Reserve Corps, U. S. A., Dr. Skipp became an associate of Dr. Armin Elsaesser, Youngstown, with whom he is at present associated, specializing in surgery of the neck and endocrinology.

Since 1921, Dr. Skipp has been one of the most active members of the Mahoning County Medical Society. In addition to serving on all the important committees of that society, he was secretary from 1931 to 1936; vice president in 1937, and president in 1938. In 1935 he was elected to The Council of the Ohio State Medical Association, representing the Sixth District, serving until his election as president-elect this year. As a member of The Council of the State Association he served as a member and later chairman of the Committee on Auditing and Appropriations and as a member of the Coordinating Committee. Also, he served one term as alternate delegate to the American Medical Association.

Professionally, Dr. Skipp has a record of which he may well be proud. In addition to being a member of the surgical staff of Youngstown Hospital and instructor in the Nurses' Training School of that institution, Dr. Skipp is a fellow of the American Medical Association, the American College of Surgeons, and the International College of Surgeons; an advocate of the American Board of Surgery, and a member of the Society for the Study of Endocrines. He is a member of the Nu Sigma Nu Fraternity and the Episcopalian Church. Dr. Skipp is married and the father of one son and one daughter. His chief hobby is his suburban estate located at Canfield, 12 miles from Youngstown.

Official Proceedings of the House of Delegates, Ohio State Medical Association, 93rd Annual Meeting, Toledo, May 3 and 4, 1939

MINUTES OF FIRST SESSION

THE Ninety-Third Annual Meeting of the Ohio State Medical Association opened officially in the El Dorado Room, Commodore Perry Hotel, Toledo, at 9:30 A.M., Wednesday, May 3, 1939, with the first session of the House of Delegates.

Dr. Carll S. Mundy, president of the Toledo Academy of Medicine, called the meeting to order and welcomed the delegates. Dr. Mundy said, in part: "In these days of economic chaos and factional strife, the medical profession has found it difficult to maintain its equilibrium. We have had our fair share of grief, and of differences of opinion among ourselves. Under such circumstances levelheaded leadership becomes of paramount importance. To only a few is given the vision to see the middle of the road and the ability to unite the two extremes of thought. Medicine must accept such leadership, as only by presenting a united front can we hope to carry onward and upward in our traditional course. Those of us who have had some experience in organizational work realize the tremendous sacrifice that must be made by our leaders if we are not to be put to serious disadvantage by well organized pressure groups. It may be a pity that more in the profession do not realize this, but I am persuaded that the rank and file is more critical of its leadership at this time than for many years. This in itself is some reason for hope.

"Ohio is fortunate in having leaders who possess the ability and who are willing to make the sacrifices necessary to guard well our interests. You, as the delegates to the State Association, are our leaders as well as our representatives. When you selected a Toledo physician to pilot our State ship during the past year, we, in Toledo, were much pleased—pleased because we had learned through the years to respect his ability and have confidence in his judgment and integrity, and thus believed him to be qualified for leadership during such unusual times as these. We feel the events of the past year have proved that our confidence has not been misplaced. It is, therefore, a great pleasure for me to introduce our President, Dr. Barney J. Hein of Toledo."

ADDRESS OF THE PRESIDENT

After officially calling the House of Delegates to order, Dr. Hein presented his Presidential Address, published in full on pages 630 to 636 of this issue of *The Journal*.

The roll call was answered by 108 delegates and officers (see official roll call appended).

On motion by E. J. McCormick, seconded by L. H. Schriver and carried, the minutes of the House of Delegates sessions held during the 92nd Annual Meeting in Columbus, May 11 and 12, were approved as published on pages 687 to 697, inclusive, of the June, 1938, issue of *The Ohio State Medical Journal*.

REFERENCE COMMITTEES

The following reference committees, to handle various business matters coming before the House of Delegates, were appointed by President Hein:

Presidential Address—Walter K. Stewart, Youngstown, chairman; A. A. Brindley, Toledo; J. R. Tillotson, Lima; John A. Fraser, East Liverpool; R. R. Hendershott, Tiffin.

Resolutions—D. B. Lowe, Akron, chairman; Howard D. Fabing, Cincinnati; G. A. Woodhouse, Pleasant Hill; John V. Hartman, Findlay; E. B. Gillette, Toledo; H. C. King, Lakewood; J. W. Calhoon, Uhrichsville; J. L. Webb, Nelsonville; Dow Allard, Portsmouth; Geo. T. Harding, Columbus.

Annual Reports—Henry B. Freiberg, Cincinnati, chairman; R. H. Good, Van Wert; John M. Van Dyke, Canton; C. L. Baker, Marion; O. P. Tatman, Chillicothe.

Credentials of Delegates—A. W. Carley, Dayton, chairman; H. C. Messenger, Xenia; Chester A. Casey, Ironton.

Tellers and Judges of Election—G. M. Lane, Springfield, chairman; R. G. Schutte, Kenton; George A. Gressle, Newark; C. I. Kuntz, Fremont; C. C. Hussey, Sidney.

Time and Place of 1940 Annual Meeting—Ralph M. Watkins, Cleveland, chairman; Chas. T. Atkinson, Middletown; I. B. Harris, Columbus; John F. Wright, Toledo.

ANNUAL REPORTS

Annual reports of officers and committees, published in the April, 1939, issue of *The Journal*, were submitted by title only and referred to the Reference Committee on Annual Reports.

NOMINATING COMMITTEE

At this point the House of Delegates proceeded to elect the following Nominating Committee to

submit the names of candidates for the various offices, with the exception of President-Elect, at the second session of the House of Delegates, scheduled for Thursday afternoon, May 4:

First District—Henry B. Freiberg, Cincinnati.

Second District—H. C. Messenger, Xenia.

Third District—Guy E. Noble, St. Marys.

Fourth District—A. A. Brindley, Toledo.

Fifth District—E. F. Kieger, Cleveland.

Sixth District—O. J. Walker, Youngstown.

Seventh District—J. A. Fraser, East Liverpool.

Eighth District—M. A. Loebell, Zanesville.

Ninth District—P. A. Jividen, Rutland.

Tenth District—John M. Thomas, Columbus.

INTRODUCTION OF RESOLUTIONS

The following resolutions were introduced and referred, without debate, to the Reference Committee on Resolutions:

Resolution A. Introduced by A. A. Brindley, Toledo:

WHEREAS, There is pending in the United States Congress S. 1620, known as the National Health Bill, and

WHEREAS, This proposal would establish a Federal bureaucratic and costly system of public health administration and medical care, the objectives of which are questionable and the necessity for which has not been demonstrated, and

WHEREAS, The Council of the Ohio State Medical Association at its meeting on March 12, 1939, adopted an official Statement of Policy condemning certain provisions of S. 1620 and pointing out serious objections to the enactment of such proposal,

BE IT RESOLVED, That the House of Delegates, in Annual Session, May 3 and 4, 1939, Toledo, Ohio, officially support and approve that Statement of Policy, adopted by The Council, as an expression of sentiment of the members of this Association regarding S. 1620, or similar proposals.

Resolution B. Introduced by J. H. J. Upham, Columbus:

WHEREAS, House Bill No. 188 provides for a separate Board of Examiners for Nurses, and

WHEREAS, For 24 years the registration and examination of nurses has been carried out by a Nurses' Examining Committee under the State Medical Board with complete cooperation and efficiency, as evidenced by official expression of appreciation by the State Nurses' Association in January, 1939, and

WHEREAS, The establishment of a separate board of examiners for nurses would encourage other groups now under the supervision of the State Medical Board to seek separate boards to the danger of bringing chaotic conditions and impairing the efficiency of the Medical Practice Act,

THEREFORE BE IT RESOLVED, That the Ohio State Medical Association, in Annual Session, expresses its opinion that the medical profession is vitally concerned with the educational qualifications of all those to be occupied in professional attendance upon the sick and believes that all such should be under one central board of supervision, and

BE IT THEREFORE FURTHER RESOLVED, That this Association respectfully urge the members of the General Assembly to not approve House Bill No. 188.

Resolution C. Introduced by John S. Hattery, Mansfield:

WHEREAS, The Woman's Auxiliary to the Richland County Medical Society has initiated a movement to organize an Auxiliary to the Ohio State Medical Association, and

WHEREAS, The objects of the Woman's Auxiliary are: (1) To interpret the aims of the medical profession to other organizations interested in the promotion of health education; (2) To assist in entertainment at medical conventions; (3) To promote acquaintanceship among doctors' families so that closer fellowship may exist, and

WHEREAS, The Woman's Auxiliary to the Richland County Medical Society respectfully requests the consent of the House of Delegates of the Ohio State Medical Association to further this cause,

THEREFORE BE IT RESOLVED, That the House of Delegates hereby grant permission to the wives of members of the Ohio State Medical Association to organize forthwith a State Woman's Auxiliary.

Resolution D. Introduced by A. J. Silbiger, Atwater:

WHEREAS, The hospital reimbursement law 6308-7 of the Ohio Statutes providing for the hospital payment of indigents injured in auto accidents makes no provision for the surgical attendance of those injured;

BE IT HEREBY RESOLVED, That the Ohio State Medical Association foster an amendment to said Statutes 6308-7, providing for payment of fees, equivalent to those of the Ohio Industrial Commission, to the attending surgeon.

Resolution E. Introduced by Parke G. Smith, Cincinnati, on behalf of The Council:

WHEREAS, There is greater need at present than ever before for the maintenance by the medical profession of Ohio of a strong and active state-wide organization, due to an increasing number of social, economic, and legislative problems relating to public health, medical care, and the practice of medicine, and

WHEREAS, The Council of the Ohio State Medical Association, after a careful study of the present activities of the Association and anticipated problems, has recommended an expansion of the program of the Association to include especially the establishment of a public education or public relations department at the Headquarters Office in addition to other necessary activities and programs, and

WHEREAS, Additional funds and personnel will be needed to put such expansion program into effect,

BE IT RESOLVED by the House of Delegates, meeting in Toledo, Ohio, May 3 and 4, 1939, that the per capita annual dues of the Association be increased from $5.00 to $7.00 beginning January

1, 1940, so as to provide adequate funds for the heretofore referred to expansion program in line with the recommendations considered and approved by The Council at its regular meeting on December 3 and 4, 1938, and as published in the January 1, 1939, issue of *The Ohio State Medical Journal.*

INVITATION FOR 1940 ANNUAL MEETING

On behalf of the Cincinnati Academy of Medicine and the City of Cincinnati, Otto J. Seibert, Cincinnati, invited the Ohio State Medical Association to hold its 1940 meeting in that city. There being no further invitations, the Cincinnati invitation was referred to the Reference Committee on Time and Place of Annual Meeting.

AMENDMENT TO BY-LAWS

On behalf of The Council, the Executive Secretary submitted to the House of Delegates the following proposed amendment to Chapter 4, Section 6 of the By-Laws of the State Association, the same having been published on page 308, March issue, *The Ohio State Medical Journal:*

> "That Chapter 4, Section 6 of the By-Laws of the Ohio State Medical Association be amended by striking out the word 'ten' following the word 'establish', making the section read as follows:
>
> " 'Sec. 6. Councilor Districts. The House of Delegates shall establish councilor districts. A district society may be organized in any of the districts to meet at such time or times as the society may fix, provided the dates chosen do not fall within a period of two weeks preceding or two weeks following the annual meeting of this Association.
>
> " 'The presidents of the component societies in the several districts shall be vice-presidents of their respective district societies.' "

Following an explanation concerning the purpose of the proposed amendment, namely, to permit the creation of more than 10 councilor districts at any time the House of Delegates sees fit to do so, the amendment was **approved and adopted**, on **motion** by C. C. Sherburne, Columbus, seconded by John S. Hattery, Mansfield, and **carried.**

REDISTRICTING PLAN ADOPTED

Under the next order of business, the Executive Secretary, on behalf of The Council, presented and analyzed the following Redistricting Proposal, recommended by The Council:

1. That a new district, to be known as the Eleventh Councilor District, be created, consisting of the following counties: Ashland, Erie, Holmes, Huron, Lorain, Medina, Richland and Wayne.

2. That Crawford County be transferred from the Tenth District to the Third District.

3. That Fayette County be transferred from the First District to the Tenth District.

4. That Columbiana County be transferred from the Seventh District and Trumbull County from the Fifth District to the Sixth District.

Following a general discussion, on **motion** by Wm. M. Skipp, Youngstown, seconded by Charles R. Meek, Lorain, and **carried**, the Redistricting Proposal, as outlined, was **approved.**

ADDITION TO NOMINATING COMMITTEE

At this point the House of Delegates elected Dr. Ross M. Knoble, Sandusky, to represent the newly-created **Eleventh District** on the Nominating Committee.

Following announcements relative to the two days' program by Dr. Brindley, general chairman of local arrangements, President Hein and others, the House of Delegates recessed until Thursday noon, May 4.

MINUTES OF SECOND SESSION

THE second and final session of the House of Delegates at the Ninety-Third Annual Meeting was called to order by President Hein, following a luncheon for delegates and officers of the State Association and members of the Toledo Committees on Arrangements in the El Dorado Room, Commodore Perry Hotel, Thursday, May 4.

The roll call showed 109 delegates and officers present.

TIME AND PLACE FOR 1940 ANNUAL MEETING

On behalf of the Committee on Time and Place of Annual Meeting, R. M. Watkins, Cleveland, chairman, presented the following report:

The Committee on Time and Place of the 1940 Annual Meeting, after ascertaining that the facilities in Cincinnati are adequate, recommends that the kind invitation of the Academy of Medicine of Cincinnati, to the Association to hold its 1940 meeting there, be accepted; that the meeting be held in the Spring; and that the exact dates of the meeting be left to the discretion of The Council of the Ohio State Medical Association.

On **motion** by Dr. Watkins, seconded by Chas. T. Atkinson, Middletown, and **carried**, the report of the committee was **approved and adopted.**

REPORT OF COMMITTEE ON PRESIDENTIAL ADDRESS

Due to the absence of W. K. Stewart, chairman of the Committee on Presidential Address, A. A. Brindley, Toledo, presented the following report which, on **motion** by Dr. Brindley, seconded by J. R. Tillotson, Lima, was **approved and adopted:**

Your committee submits for your consideration the following report upon the address of President Barney J. Hein, delivered at the opening session of the House of Delegates, May 3, 1939:

The committee wishes to preface its report by mention of the fact that each economic phase of medicine so ably essayed by Dr. Hein is first-



HOW STATE LOOKS UNDER COUNCILOR REDISTRICTING PLAN ADOPTED BY HOUSE OF DELEGATES

(See Opposite Page)

hand information. This splendid address is not research gleaned from books stacked beside a comfortable chair. Only by exhaustive physical effort and through countless trips to Columbus and many other cities, has this vast knowledge of the subject of socialized medicine been accumulated. We of the committee feel safe in saying no other President has experienced a more arduous tenure of office. The foundation for the economic future of medicine in Ohio has been firmly implanted in Dr. Hein's administration. This brings this report to the first section of the Presidential Address.

The President displays a deep understanding of the future of medicine in the State of Ohio. He realizes the necessity of cooperation between the scientific forces and social-economic forces in order to bring about a more adequate distribution of the benefits of scientific medicine and, at the same time, provide a more adequate measure of security to the physician of the future.

Dr. Hein skillfully divides the present economic problems of medicine into three parts: "(1) Furnishing of adequate medical service for the indigent; (2) Provision of better methods of providing adequate medical care for the low-income groups; and (3) Proposals which have

been offered to revamp the present methods of distributing medical care and expand public health services."

In the attack on the first problem, the Ohio State Medical Association has taken the initiative, also the leadership in so far as the allied groups and professions are concerned. We have cooperated with welfare agencies who are interested in a centralized, more efficient method of handling relief problems. In order to improve the legality of the relief client, recodification of antiquated laws is necessary. Strong opposition has been encountered in the Legislature to this movement in the factor of the Association of Township Trustees. It is desirable that each individual physician become a committee of one to educate his township trustee to accept this relief program of the Association as a sound program of better medical care of the indigent in each township. We must not become discouraged but continue striving for this goal.

Likewise the low-wage earner needs our sympathetic understanding. In this economic phase we lack the actual figures which by experience group hospitalization organizations have before them. The committee heartily endorses the efforts of this administration to place before each county medical society a skeleton plan for consideration. In order to have the opportunity to sell group medical care to the low-wage earner, further legislation must be enacted. It is imperative that each individual physician acquaint himself with the problem so that he may induce the legislator from his district to vote favorably on a bill for the furtherance of this important program. However, there is considerable ground work which each county medical society must lay out. Education of its own membership to the needs of such a program is needed so that time is not wasted before legislative enactment is an accomplished fact.

In discussing the third question, Dr. Hein has very aptly called attention to the fact that the government should consider the ability of the individual physician to handle the bulk of its expansive program, and that already existing hospital facilities be utilized. Thus, compulsory health insurance is to be condemned as un-American, and not in line with a personalized patient-physician relationship, which has made American medicine so outstanding throughout the world. On the other hand it is the function of government to coordinate and initiate programs of "improvement of food, housing and other environmental conditions which have the greatest influence on the health of our citizens".

There has been, since the publication of statistics at the National Health Conference, a premeditated effort to undermine and criticize the ability of the medical profession to cope with the health of the nation. We feel this is unjust because it is, as Dr. Hein has pointed out, not a problem for the medical profession alone, but for all the citizens of the country.

The committee congratulates Dr. Hein's administration and The Council for their alacrity in their "full steam ahead" program. They were virtually two months ahead of the A.M.A. endorsement. Their vision of the acuteness of the issues and the need for immediate action were beyond precedent in the Association. The action of Dr. Parke G. Smith's committee will occupy a high place in the history of this Association. Time and space do not allow the committee to discuss in full the subjects which this Coordinating Committee undertook for consideration. They are pertinent and available through *The Journal*. But it is interesting to note how the committee attacked the problem of malicious propaganda. Its "give the public the facts" program is a public relations activity of great merit.

The second great undertaking of the Coordinating Committee involves the recommendation of establishing medical service plans for low-wage earners. This problem has previously been discussed in this report. However, we quote from Dr. Hein's address: "How soon such plans can be put into operation will depend on local conditions, the solution of legal problems and the degree of active interest manifested by members of the medical profession."

Dr. Hein reflected the keynote of the problem of medical economics when he endorsed a program of education among the membership. The committee wishes to commend Dr. Hein on his alertness in all phases of his administration. Since these matters are brought to your attention through the committee reports, it is not necessary to repeat them here. We earnestly endorse Dr. Hein's appreciation of the diligent work of the Headquarter's Office staff, the Councilors, and committee members.

In closing may we call to your attention again, as Dr. Hein has so ably done, the challenge of the future. Each individual physician should recognize as never before, his individual responsibility to local, state-wide and nation-wide activities. He must lead the way in lay organization problems. Only in accepting such responsibility can the science and the art of medicine be preserved and retained in the medical profession.

REPORT OF COMMITTEE ON ANNUAL REPORTS

The report of the Committee on Annual Reports was presented by Henry B. Freiberg, Cincinnati, chairman, reading as follows:

The Reference Committee on Annual Reports has studied and carefully discussed the annual reports which were published in the April, 1939, issue of *The Ohio State Medical Journal* and wishes to report as follows:

Committee on Poor Relief

The Reference Committee wishes to call the attention of the House of Delegates to the annual report of the Special Committee on Poor Relief. In this report the Committee on Poor Relief outlined the work that it is doing in supporting suitable legislation introduced into the Ohio Legislature to properly centralize the work of poor relief.

It calls attention in particular to the lack of interest of the medical profession at large in taking an active part in this work and in urging their legislators to pass suitable legislation.

It urges the medical profession as a whole to request the Legislature to support the proposals which the Committee on Poor Relief has endorsed and is trying to have enacted.

The Committee on Poor Relief is to be congratulated upon its stand, and your committee wishes to urge that every possible support be given it in this most necessary and valuable work.

Committee on Public Relations and Economics

The Reference Committee wishes to commend the members of the Committee on Public Relations and Economics for its work during the

past year and to call attention of the House of Delegates to the importance of this work. This committee is carrying on in a most effective manner a campaign to awaken the medical profession as a whole to the urgency of acquainting the public with its views and to giving the public the correct attitude on medical problems.

Through this committee there has been furnished to the medical profession much literature dealing with medical problems. We quote from a portion of the report: "Efficient legislative work cannot be carried on by the State Medical Association unless the committees and officers of the State Association and the personnel of the State Headquarters Office have the active support and cooperation of all county medical societies. Too often this statement is made by members of the General Assembly: 'The physicians in my county have not discussed that bill with me. Therefore, how do I know how they stand on it?'"

A great deal of work has been carried out in determining the acceptability of candidates for election, from a medical point of view. Each candidate for election was canvassed and his views on medical problems ascertained. These views were transmitted to the county societies for their use.

General meetings of public relations committees from the several counties have been held in Columbus to further acquaint these committees with the data received from the various candidates.

Through the Sub-Committee on Workmen's Compensation much valuable aid has been given to the State Industrial Commission. Many of the recommendations made to the Industrial Commission by the sub-committee, have been adopted by the Commission and others are receiving serious consideration.

The Committee on Public Relations and Economics has kept in close touch with national as well as local and state medical problems and through articles in *The Journal* has, from time to time, acquainted the profession with national developments of medical importance. Too much emphasis cannot be laid on the importance of giving the public at large the correct medical point of view. This committee has been most effective in its efforts along these lines.

Committee on Education

The Committee on Education has made definite advancement during this past year. Assisted by the Sub-Committee on Regional Postgraduate Lectures, the Committee on Education has been able to establish a concrete program of postgraduate education for the membership generally.

A series of five regional lectures has been given throughout the state. These seminars have been addressed by doctors from various points of the state and have been beautifully attended. The cost of the programs is comparatively small due to the generosity of the lecturers who gave their services gratis. A similar series of lectures beginning this coming Fall is contemplated, with an even wider scope than that of last year.

Assisted by the Sub-Committee on District Meetings, the Committee on Education has been able to render valuable aid to district meetings, both in furnishing data and speakers when requested. Although the Speakers Bureau has not been utilized up to its capabilities, it is felt that progress is being made in this field.

Plans of merit are being made by the Sub-Committee on Public Health Education and will be carried out as soon as adequate personnel and funds are available.

The Committee on Education feels that educational activities of organized medicine must be maintained in as active a way as possible. Medical organization is obligated to its members to furnish them with educational opportunities. Physicians, collectively and individually, constantly must strive to become better physicians and endeavor to render more efficient service to the public. Better services and education go hand in hand.

The Committee on Annual Reports wishes to congratulate most heartily the Committee on Education for its efforts in the past year, and wishes further to commend its work to the House of Delegates.

Annual Report of Treasurer and Committee on Auditing and Appropriations

The books of the Ohio State Medical Association and *The Ohio State Medical Journal* were audited by Keller, Kirschner and Martin, Certified Public Accountants, of Columbus. The reference committee approves the report as presented.

On **motion** by Dr. Freiberg, seconded by R. H. Good, Van Wert, and **carried**, the report of the committee was **approved and adopted.**

REPORT OF COMMITTEE ON RESOLUTIONS

D. B. Lowe, Akron, chairman of the Committee on Resolutions, presented the following report:

The Reference Committee on Resolutions has given careful consideration to the five resolutions presented at the first session of the House of Delegates, Wednesday, May 3, 1939, and which were referred to this committee. Those resolutions are, herewith, returned to the House of Delegates with the recommendations of the committee as follows:

Resolution A

Resolution A, introduced by A. A. Brindley, Lucas County, read as follows:

> "WHEREAS, There is pending in the United States Congress S. 1620, known as the National Health Bill, and
>
> "WHEREAS, This proposal would establish a Federal bureaucratic and costly system of public health administration and medical care, the objectives of which are questionable and the necessity for which has not been demonstrated, and
>
> "WHEREAS, The Council of the Ohio State Medical Association at its meeting on March 12, 1939, adopted an official Statement of Policy condemning certain provisions of S. 1620 and pointing out serious objections to the enactment of such proposal,
>
> "BE IT RESOLVED, That the House of Delegates, in Annual Session, May 3 and 4, 1939, Toledo, Ohio, officially support and approve that Statement of Policy, adopted by The Council, as an expression of sentiment of the members of this Association regarding S. 1620, or similar proposals."

This resolution requests the House of Delegates to support and approve the action of The

Council of the Ohio State Medical Association in its condemnation of certain provisions of S. 1620, known as the National Health Act, pending in the Congress of the United States, which proposal The Council believes inimical to the best interests of the public as well as the medical profession.

The committee recommends that Resolution A be adopted.

On motion by Dr. Lowe, seconded by A. A. Brindley, Toledo, and carried the report of the committee on Resolution A was adopted.

Resolution B

Resolution B, presented by J. H. J. Upham, Franklin County, read as follows:

"WHEREAS, House Bill No. 188 provides for a separate Board of Examiners for Nurses, and

"WHEREAS, For twenty-four years the registration and examination of nurses has been carried out by a Nurses' Examining Committee under the State Medical Board with complete cooperation and efficiency, as evidenced by official expression of appreciation by the State Nurses' Association in January, 1939, and

"WHEREAS, The establishment of a separate board of examiners for nurses would encourage other groups now under the supervision of the State Medical Board to seek separate boards to the danger of bringing chaotic conditions and impairing the efficiency of the Medical Practice Act,

"THEREFORE BE IT RESOLVED, That the Ohio State Medical Association, in Annual Session, expresses its opinion that the medical profession is vitally concerned with the educational qualifications of all those to be occupied in professional attendance upon the sick and believes that all such should be under one central board of supervision, and

"BE IT THEREFORE FURTHER RESOLVED, That this Association respectfully urge the members of the General Assembly to not approve House Bill No. 188."

This resolution has the effect of requesting the House of Delegates to support the action of The Council in disapproving House Bill No. 188, now pending in the Ohio General Assembly, and the action of the Sub-Committee on Legislation in actively opposing the enactment of this proposal which would establish a separate board to examine and license nurses. The resolution points out certain sound reasons why House Bill No. 188 should not be enacted and asks that the State Medical Association continue its efforts to prevent such bill from becoming a law.

The committee approves the foregoing resolution and recommends its adoption.

On motion by Dr. Lowe, seconded by H. V. Dutrow, Dayton, and carried the report of the committee on Resolution B was adopted.

Resolution C

Resolution C was presented by John S. Hattery, Richland County. It read as follows:

"WHEREAS, The Woman's Auxiliary to the Richland County Medical Society has initiated a movement to organize an Auxiliary to the Ohio State Medical Association, and

"WHEREAS, The objects of the Woman's Auxiliary are: (1) To interpret the aims of the medical profession to other organizations interested in the promoton of health education; (2) To assist in entertainment at Medical Conventions; (3) To promote acquaintanceship among doctors' families so that closer fellowship may exist, and

"WHEREAS, The Woman's Auxiliary to the Richland County Medical Society respectfully requests the consent of the House of Delegates of the Ohio State Medical Association to further this cause,

"THEREFORE BE IT RESOLVED, That the House of Delegates hereby grant permission to the wives of members of the Ohio State Medical Assiciation to organize forthwith a State Woman's Auxiliary."

Since certain portions of this resolution are ambiguous, your reference committee, with the consent of the author of the resolution, hereby submits the following substitute resolution:

Substitute Resolution C

"WHEREAS, The Woman's Auxiliary to the Richland County Medical Society desires the organization of a Woman's Auxiliary to the Ohio State Medical Association, to be composed of the wives of members of the Ohio State Medical Association, and

"WHEREAS, The creation of a Woman's Auxiliary is requested in order that it may be of assistance to this Association socially and educationally,

"THEREFORE BE IT RESOLVED, That the House of Delegates, in convention assembled at Toledo, May 3 and 4, 1939, approves the principle of the formation of a Woman's Auxiliary of the Ohio State Medical Association and directs The Council of the Association to devise plans for such an organization in conformity with the plan of organization of the Woman's Auxiliary of the American Medical Association, and to establish procedure for the guidance and supervision of such Woman's Auxiliary in Ohio."

Your committee believes that the purpose of this resolution is self-evident and that the creation of a Woman's Auxiliary to the Ohio State Medical Association would be feasible and advisable. Therefore, **we recommend that Substitute Resolution C be adopted.**

On motion by Dr. Lowe, seconded by G. A. Woodhouse, Pleasant Hill, and carried, the report of the committee on Resolution C was adopted.

Resolution D

Resolution D, reading as follows, was presented by A. J. Silbiger, Portage County:

"WHEREAS, The hospital reimbursement law

6308-7 of the Ohio Statutes providing for the hospital payment of indigents injured in auto accidents makes no provision for the surgical attendance of those injured;

"BE IT HEREBY RESOLVED, That the Ohio State Medical Association foster an amendment to said Statutes 6308-7, providing for payment of fees, equivalent to those of the Ohio Industrial Commission, to the attending surgeon."

There is no way by which an amendment, such as the one proposed in this resolution, can be introduced in the present Regular Session of the Ohio General Assembly, which is expected to adjourn sine die within the next several weeks. The next General Assembly will not meet until 1941. It seems to your committee as if it would be most inadvisable for the House of Delegates to make mandatory an action that cannot be consummated for a period of two years, and to commit the Association to a policy on this question at this time. Changing economic conditions during this two-year period might well make action, such as that proposed in the resolution, unnecessary or even detrimental to the interests of the medical profession.

Your committee, being evenly divided for and against the principle of the resolution, believed it best to substitute the following resolution for Resolution D:

Substitute Resolution D

"WHEREAS, There apparently is a difference of opinion among the members of the medical profession in Ohio as to the advisability of reimbursing physicians from the State Automobile License Fund for the professional care of indigents injured in motor vehicle accidents,

"THEREFORE BE IT RESOLVED, That The House of Delegates direct The Council to study thoroughly this problem to the end that a method of payment for medical care of indigents injured in motor vehicle accidents be devised, if possible, and that The Council report its findings to the House of Delegates at the 1940 Annual Meeting of this Association."

The committee **recommends that Substitute Resolution D be adopted.**

On **motion** by Dr. Lowe, seconded by A. J. Silbiger, Atwater, and **carried**, the report of the committee on Resolution D was **adopted.**

Resolution E

Resolution E, introduced by Parke G. Smith, Hamilton County, on behalf of The Council, read as follows:

"WHEREAS, There is greater need at present than ever before for the maintenance by the medical profession of Ohio of a strong and active state-wide organization, due to an increasing number of social, economic, and legislative problems relating to public health, medical care, and the practice of medicine, and

"WHEREAS, The Council of the Ohio State Medical Association, after a careful study of the present activities of the Association and anticipated problems, has recommended an expansion of the program of the Association to include especially the establishment of a public education or public relations department at the Headquarters Office in addition to other necessary activities and programs, and

"WHEREAS, Additional funds and personnel will be needed to put such expansion program into effect,

"BE IT RESOLVED by the House of Delegates, meeting in Toledo, Ohio, May 3 and 4, 1939, that the per capita annual dues of the Association be increased from $5.00 to $7.00 beginning January 1, 1940, so as to provide adequate funds for the heretofore referred to expansion program in line with the recommendations considered and approved by The Council at its regular meeting on December 3 and 4, 1938, and as published in the January 1, 1939, issue of *The Ohio State Medical Journal*."

This resolution provides for the continuance as well as the expansion of present activities of the Ohio State Medical Association, and for the inauguration of new and necessary services.

It was presented and recommended to the House of Delegates by The Council as a result of a careful and thorough study made by the Committee on Auditing and Appropriations.

As was pointed out by that committee in a report presented to The Council on December 4, 1938, the additional income provided by the proposed nominal increase in per capita annual dues would enable the Ohio State Medical Association to provide more benefits and services for all members, in the form of an efficient and effective public relations program; increased legislative effort; provision for better postgraduate education; enlargement of the Speakers Bureau; construction of educational exhibits; radio programs and many other worthwhile services to the profession individually and collectively.

Your committee notes particularly in the resolution the emphasis placed upon the establishment of a public education or public relations department at the State Headquarters Office.

It wishes to quote at this time from the report of the Auditing and Appropriations Committee, mentioned above: "There has never been a time when there has been a greater need for a good public relations program"; and that it "feels that right now is the proper time for the medical profession to educate the public about some of the problems of the profession, the questions involved in health and medical care, and the evils which are certain to arise should some of the proposals which have been offered be enacted into law".

The Committee on Resolutions was particularly impressed with the following statement, made to The Council by the Committee on Auditing and Appropriations: "A closer relationship be-

tween the profession and the people must be established. This can be accomplished through public relations. Efforts in this direction should be well planned and worked out on a long-range basis. Public opinion cannot be swayed except through a sustained campaign extending over a period of months as well as years." **Your committee heartily concurs in the purpose and recommendations of Resolution E and recommends its adoption by the House of Delegates.**

On motion by Dr. Lowe, seconded by L. H. Schriver, Cincinnati, and carried, the report of the committee on Resolution E was adopted.

On motion by Dr. Lowe, seconded by B. A. Souders, Cambridge, and carried, the Report of the Committee on Resolutions as a whole was adopted.

MISCELLANEOUS BUSINESS

Vote of Appreciation—On motion by O. J. Walker, Youngstown, seconded by J. R. Tillotson, Lima, and carried, the House of Delegates expressed a rising vote of appreciation to the Toledo Academy of Medicine, the Local Committees on Arrangements, and others who had an official part in making the Ninety-Third Annual Meeting one of the most successful in the history of the Association. Such motion also included a vote of thanks to the management of the Commodore Perry Hotel for its excellent services, and to Toledo newspapers for their accurate and comprehensive coverage of the meeting.

President of the A.M.A. Woman's Auxiliary Speaks—At this point President Hein introduced to the House of Delegates, Mrs. Charles C. Tomlinson, Omaha, Nebr., president of the Woman's Auxiliary to the American Medical Association. Mrs. Tomlinson was given an ovation by the House of Delegates. She responded with a brief address expressing appreciation for the action of the House of Delegates in authorizing the creation of a Woman's Auxiliary to the Ohio State Medical Association.

ELECTION OF PRESIDENT-ELECT

Nominations for the office of President-Elect were called for by President Hein.

E. J. McCormick, Toledo, placed in nomination the name of Wm. M. Skipp, Youngstown, completing his fourth year as a member of The Council from the Sixth District. The nomination was seconded by R. R. Hendershott, Tiffin, and others. There being no further nominations, on motion by Henry B. Freiberg, Cincinnati, seconded by E. R. Swepston, Cincinnati, and carried, the nominations were ordered closed and the Secretary was instructed to cast the unanimous ballot of the House of Delegates for Wm. M. Skipp, Youngstown, as President-Elect. **So recorded and announced.**

Dr. Sherburne, on instructions from the chair, escorted Dr. Skipp to the rostrum and he was officially presented to the House of Delegates.

ELECTION OF COUNCILORS

Henry B. Freiberg, Cincinnati, chairman of the Committee on Nominations, reported for the committee. The committee presented the name of D. W. Hogue, Springfield, to succeed himself as a member of The Council from the Second District. There being no nominations from the floor, on motion by H. C. Messenger, Xenia, seconded by H. V. Dutrow, Dayton, and carried, the nominations were ordered closed and the Secretary instructed to cast the unanimous ballot of the House of Delegates for Dr. Hogue for a two-year term, 1939-1940, as Councilor of the Second District. **So recorded and announced.**

The committee placed in nomination the name of E. J. McCormick, Toledo, to succeed himself as a member of Council from the Fourth District. There being no nominations from the floor, on motion by E. B. Gillette, Toledo, seconded by A. A. Brindley, Toledo, and carried, the nominations were ordered closed and the Secretary instructed to cast the uannimous ballot of the House of Delegates for Dr. McCormick to serve a two-year term, 1939-1940, as Councilor of the Fourth District. **So recorded and announced.**

Ralph L. Rutledge, Alliance, was nominated by the Committee on Nominations as a member of The Council from the Sixth District succeeding Wm. M. Skipp, newly-elected President-Elect. Robert T. Allison, Akron, placed in nomination the name of Carl R. Steinke, Akron, for the position of Councilor of the Sixth District. Such nomination was seconded by A. J. Silbiger, Atwater. There being no further nominations, the House of Delegates balloted. **Dr. Rutledge was** elected Councilor of the Sixth District to serve a two-year term, 1939-1940.

George F. Swan, Cambridge, was nominated by the Committee on Nominations as Councilor of the Eighth District. The name of Ward D. Coffman, Zanesville, was placed in nomination by M. A. Loebell, Zanesville, seconded by Edgar D. Allen, Crooksville. There being no further nominations, the House of Delegates balloted. Dr. Swan was elected Councilor of the Eighth District to serve a two-year term, 1939-1940.

C. C. Sherburne, Columbus, was nominated by the committee to succeed himself as Councilor for the Tenth District for a two-year term, 1939-1940. There being no further nominations, on motion by H. V. Dutrow, Dayton, seconded by H. C. Messenger, Xenia, and carried, the nominations were ordered closed and the Secretary instructed to cast the unanimous ballot of the House of Delgates for Dr. Sherburne. **So recorded and announced.**

To serve the unexpired term of one year of

C. W. Kirkland, Bellaire, Councilor of the Seventh District (resigned), the Committee on Nominations placed in nomination the name of Carl Goehring, Steubenville. There being no further nominations, on motion by Lewis Cellio, Carrollton, seconded by E. P. McNamee, Cleveland, and carried, the nominations were ordered closed and the Secretary instructed to cast the unanimous ballot of the House of Delegates for Dr. Goehring to serve for one year, 1939, as Councilor of the Seventh District. So recorded and announced.

To serve a one-year term, as Councilor of the newly-created Eleventh District, the Committee on Nominations placed in nomination the name of S. V. Burley, Lorain. There being no further nominations, on motion by Ross M. Knoble, Sandusky, seconded by John A. Fraser, East Liverpool, and carried, the nominations were closed and the Secretary instructed to cast the unanimous ballot of the House of Delegates for Dr. Burley to serve one year, 1939, as Councilor of the Eleventh District. So recorded and announced.

ELECTION OF A.M.A. DELEGATES AND ALTERNATES

On behalf of the Committee on Nominations, Dr. Freiberg placed in nomination the following, three of whom to be elected as delegates to the American Medical Association for two-year terms, 1939-1940: B. J. Hein, Toledo; C. E. Kiely, Cincinnati; Claude B. Norris, Youngstown; J. H. J. Upham, Columbus; and C. W. Waggoner, Toledo.

Dr. Upham, upon recognition from the chair, requested that his name be withdrawn as a nominee for A.M.A. delegate, pointing out that it would be more desirable for the State Association to be represented in the A.M.A. by younger men and men who, at the present time, are taking a more active part in the affairs of the Ohio State Medical Association. In compliance with Dr. Upham's request, and with the consent of the Committee on Nominations, the President authorized the elimination of the name of Dr. Upham from the slate of nominees presented by the committee.

The House of Delegates then balloted on the four names before it for consideration as A.M.A. delegates. The following were elected: B. J. Hein, C. E. Kiely, and Claude B. Norris.

The names of the following were placed in nomination for the three positions of alternate delegate to the A.M.A. to serve for two years, 1939-1940: Dow Allard, Portsmouth; Charles R. Meek, Lorain; and E. O. Swartz, Cincinnati. There being no further nominations, on motion by I. P. Seiler, Piketon, seconded by E. J. McCormick, Toledo, and carried, the nominations were closed and the Secretary instructed to cast the unanimous ballot of the House of Delegates for Charles R. Meek, E. O. Swartz, and Dow Allard as alternate delegates to the American Medical Association. So recorded and announced.

INSTALLATION OF NEW PRESIDENT

Dr. Hein requested Parke G. Smith, Cincinnati, the President-Elect, to present himself at the rostrum and thereupon presented him with the official gavel of the Association, expressing sincere best wishes for a successful tenure of office. Following a brief statement, in which he promised to do everything within his power to carry on the splendid work which had been done during the past year under the presidency of Dr. Hein, Dr. Smith took the chair as the new President of the Ohio State Medical Association for the year 1939.

APPOINTMENT OF NEW COMMITTEEMEN

As his first official act, President Smith announced the appointment of the following committee members, which appointments, on motion by J. E. Tuckerman, Cleveland, seconded by E. P. McNamee, Cleveland, were officially confirmed by the House of Delegates:

Committee on Public Relations and Economics —D. B. Lowe, Akron, to succeed himself, for a term of five years and to serve as chairman of the committee for the ensuing year.

Committee on Education—S. H. Ashmun, Dayton, for a term of five years. Chairman for the ensuing year—Clyde L. Cummer, Cleveland.

Committee on Scientific Work—Fred W. Dixon, Cleveland, for a term of five years. Chairman for the ensuing year—Claude B. Norris, Youngstown.

Judicial and Professional Relations Committee —Howard D. Fabing, Cincinnati, for a term of five years. Chairman for the ensuing year—Leslie L. Bigelow, Columbus.

There being no further business, the House of Delegates adjourned to meet in Cincinnati in the Spring of 1940.

Attest: CHARLES S. NELSON,
Executive Secretary.

Ohio Physicians on Program

Speakers at the annual meeting of the Federation of American Societies for Experimental Biology in Toronto, April 26-29, included the following members of the faculty of Western Reserve University School of Medicine: Dr. Joseph Seifter, Dr. Reginald Shipley, Dr. Joseph T. Wearn, Dr. J. Paul Quigley, Dr. Gerald T. Kent, Dr. Rene Wegria, Dr. Harold D. Green, Dr. Norman H. Boyer, Dr. Donald E. Gregg, Dr. John J. Thornton, Dr. Frederick R. Mautz, Dr. Richard W. Eckstein; Dr. George W. Wright, Dr. Kenton Phelps, Dr. Edward Muntwyler, Dr. George H. Mangum, Dr. Robert C. Mellors, and Dr. Victor C. Myers.

House of Delegates Roll Call, 93rd Annual Meeting

County	Delegate	First Session	Second Session
Adams	O. T. Sproull	present	present
Allen	J. R. Tillotson	present	present
Ashland	M. D. Shilling	present	present
Ashtabula	R. B. Wynkoop	.....	.....
Athens	J. L. Webb	present	present
Auglaize	Guy E. Noble	present	present
Belmont	Louis L. Liggett	.....	.....
Brown	Geo. P. Tyler, Jr.	.....	.....
Butler	Chas. T. Atkinson	present	present
Carroll	Lewis Cellio	present	present
Champaign	D. C. Houser	present	present
Clark	G. M. Lane	present	present
Clermont	C. F. Barber	.....	.....
Clinton	Robert Conard	present	present
Columbiana	John A. Fraser	present	present
Coshocton	J. G. Smailes	present	present
Crawford	Chas. H. King	present	.....
Cuyahoga	G. F. Sykes	present	present
"	H. C. King	present	present
"	C. D. Waltz	present	present
"	C. G. LaRocco	present	present
"	E. F. Kieger	present	present
"	M. Paul Motto	present	present
"	Milton B. Cohen	present	present
"	Ralph M. Watkins	present	present
"	Donald M. Glover	present	.....
"	C. H. Heyman	present	present
"	J. E. Tuckerman	.....	present
"	I. H. Einsel	present	present
Darke	C. I. Stephen	present	present
Defiance	D. J. Slosser	present	present
Delaware	Geo. T. Blydenburgh	.....	.....
Erie	Ross M. Knoble	present	present
Fairfield	R. H. Smith	present	present
Fayette	James M. Harsha	present	present
Franklin	I. B. Harris	present	present
"	J. H. J. Upham	present	present
"	Leslie L. Bigelow	present	present
"	John M. Thomas	present	present
"	Geo. T. Harding	present	present
Fulton	Geo. McGuffin	present	present
Gallia	W. Lewis Brown	.....	.....
Geauga	H. E. Shafer	.....	present
Greene	H. C. Messenger	present	present
Guernsey	B. A. Souders	present	present
Hamilton	Emil R. Swepston	present	present
"	George Renner, Jr.	.....	present
"	Max M. Zinninger	present	present
"	Carl W. Koehler	present	.....
"	Otto J. Seibert	present	present
"	E. O. Swartz	present	present
"	Howard D. Fabing	present	present
"	Henry B. Freiberg	present	present
"	Wm. J. Topmoeller	present	present
Hancock	John V. Hartman	present	present
Hardin	R. G. Schutte	present	present
Harrison	James A. L. Toland	.....	.....
Henry	J. J. Harrison	.....	.....
Highland	H. W. Chaney	present	present
Hocking	C. T. Grattidge	.....	.....
Holmes	Neven P. Stauffer	present	present
Huron	J. C. Steiner	.....	.....
Jackson	J. J. McClung	.....	present
Jefferson	S. J. Podlewski	present	present
Knox	F. C. Anderson	present	present
Lake	V. N. Marsh	.....	.....
Lawrence	Chester A. Casey	.....	present
Licking	George A. Gressle	.....	present
Logan	C. K. Startzman	.....	.....
Lorain	Chas. R. Meek	present	present
Lucas	E. B. Gillette	present	present
"	A. A. Brindley	present	present
"	John F. Wright	present	present
"	F. N. Nagel	present	present
Madison	J. A. Knapp	.....	.....
Mahoning	O. J. Walker	present	present
"	Edward J. Reilly	present	present
"	Gordon G. Nelson	present	present
Marion	C. L. Baker	present	present
Medina	Morris Wilderom	present	present
Meigs	P. A. Jividen	present	present
Mercer	M. L. Downing	.....	present
Miami	G. A. Woodhouse	present	present
Monroe	A. R. Burkhart	.....	.....
Montgomery	H. V. Dutrow	present	present
"	A. W. Carley	present	present
"	P. L. Yordy	present	present
Morgan	A. H. Whitacre	.....	present
Morrow	F. M. Hartsook	.....	present
Muskingum	M. A. Loebell	present	present
Noble	.....	.....	.....
Ottawa	G. A. Boon	present	present
Paulding	F. A. McCammon	present	present
Perry	Edgar D. Allen	present	present
Pickaway	H. D. Jackson	.....	.....
Pike	L. E. Wills	.....	.....
Portage	A. J. Silbiger	present	present
Preble	Geo. W. Flory	present	present
Putnam	O. J. Fatum	present	present
Richland	John S. Hattery	present	.....
Ross	R. L. Counts	present	.....
Sandusky	J. C. Boyce	present	.....
Scioto	Dow Allard	present	present
Seneca	R. R. Hendershott	present	present
Shelby	C. C. Hussey	present	.....
Stark	Geo. F. Zinninger	present	present
"	George N. Wenger	present	present
"	John M. Van Dyke	present	present
Summit	Carl R. Steinke	present	present
"	Robert T. Allison	present	present
"	H. H. Musser	present	present
"	D. B. Lowe	present	present
Trumbull	R. D. Herlinger	present	present
Tuscarawas	J. W. Calhoon	present	present
Union	John Dean Boylan	present	present
Van Wert	R. H. Good	present	present
Vinton	H. D. Chamberlain	.....	present
Warren	N. A. Hamilton	present	.....
Washington	Geo. E. Huston	present	present
Wayne	R. C. Paul	present	present
Williams	H. W. Wertz	present	.....
Wood	Paul F. Orr	present	present
Wyandot	J. Craig Bowman	present	present
	OFFICERS		
President	Barney J. Hein	present	present
President-Elect	Parke G. Smith	present	present
Treasurer	James A. Beer	present	present
Past-President	John B. Alcorn	.....	.....
	COUNCILORS		
First District	L. Howard Schriver	present	present
Second District	D. W. Hogue	present	present
Third District	O. P. Klotz	present	present
Fourth District	E. J. Mcormick	present	present
Fifth District	Edgar P. McNamee	present	present
Sixth District	Wm. M. Skipp	present	present
Seventh District	C. W. Kirkland	.....	.....
Eighth District	E. R. Brush	present	present
Ninth District	I. P. Seiler	present	present
Tenth District	C. C. Sherburne	present	present
		108	109

Ohioans Speak at Surgical Assembly

The International Assembly of the International College of Surgeons, was held at the Hotel Roosevelt, New York, May 21-25, in conjunction with the Third Annual Assembly of the United States Chapter of the College. Dr. André Crotti, Columbus, International President, presided at various sessions and delivered the oration on surgery. Dr. F. M. Douglass, Toledo, also participated as President of the United States Chapter. An address on "Common Duct Injuries—Causation and Repair", was made by Dr. Thomas E. Jones, Cleveland. A Southern winter assembly of the College will be held February 12-13, 1940, at Venice, Florida, under the direction of the International President-Elect, Dr. Fred H. Albee.

Ohio Homeopathic Society Officers

Dr. Horace E. Reed, Dover, is the new president of the Homeopathic Medical Society of Ohio, succeeding Dr. Lucy Stone Hertzog, Chardon. Dr. Reed was elected at the concluding session of the society's 75th Annual Meeting at Cleveland, May 12. Other officers named included: Dr. George F. Linn, Norwalk, vice-president; Dr. Charles E. Geiser, Cincinnati, secretary; and Dr. Geo. H. Irwin, Orrville, treasurer. Next year's meeting will be held at Columbus.

New Attendance Record for Toledo Set at 1939 Annual Meeting; Registration Figures and Those Attending

ATTENDANCE at the Ninety-Third Annual Meeting of the Ohio State Medical Association at Toledo, May 3 and 4, was considerably larger than at previous meetings of the Association in that city.

Total registration of physicians was 1,109, including 1,056 members of the State Association, 15 out-of-state physicians, 28 interns and resident physicians and 10 Ohio physicians who were guests. The number of women guests was 209. There were 84 technical exhibitors and 24 nurses, technicians and other guests, making the total registration 1,426. The previous record registration for Annual Meetings at Toledo was 1,125 in 1926.

The following tabulations show the registration figures for the past 21 succeeding Annual Meetings and the number of members from each county who registered, compared to the number of members in the county on December 31, 1938, and May 3, 1939.

Annual Meeting Registration For 1919-1939 Inclusive

Year	Place	Members	Out-of-State Physicians	Guests	Technical Exhibitors	Total
1919	Columbus	1173	10	264	92	1529
1920	Toledo	810	17	105	80	1062
1921	Columbus	1275	28	204	96	1503
1922	Cincinnati	1066	21	184	70	1341
1923	Dayton	1117	19	202	76	1414
1924	Cleveland	1301	13	180	109	1603
1925	Columbus	1204	17	361	107	1689
1926	Toledo	903	19	120	83	1125
1927	Columbus	1320	17	286	82	1705
1928	Cincinnati	916	27	92	80	1116
1929	Cleveland	1231	15	249	124	1619
1930	Columbus	1241	13	435	86	1775
1931	Toledo	826	13	198	50	1087
1932	Dayton	978	2	201	45	1226
1933	Akron	858	6	160	25	1049
1934	Columbus	1069	9	410	51	1539
1935	Cincinnati	973	17	197	84	1271
1936	Cleveland	1099	14	563	137	1813
1937	Dayton	1103	18	366	64	1551
1938	Columbus	1330	15	619	104	2068
1939	Toledo	1056	15	271	84	1426

Registration, 1939 Annual Meeting, By Counties, and Membership Data

County	Membership Dec. 31, 1938	Membership May 3, 1939	No. of Members Registered at 1939 Annual Meeting
Adams	17	18	3
Allen	65	69	16
Ashland	26	25	3
Ashtabula	42	46	1
Athens	35	38	2
Auglaize	26	26	10
Belmont	58	51	0
Brown	6	6	0
Butler	86	94	7
Carroll	12	11	1
Champaign	22	21	2
Clark	79	77	12
Clermont	23	22	1
Clinton	23	24	3
Columbiana	63	65	3
Coshocton	20	22	7
Crawford	30	28	2
Cuyahoga	1130	1042	124
Darke	32	34	3
Defiance	20	18	1
Delaware	23	23	2
Erie	41	39	9
Fairfield	33	38	2
Fayette	17	16	3
Franklin	490	472	72
Fulton	21	20	12
Gallia	20	20	0
Geauga	10	11	3
Greene	35	35	4
Guernsey	29	26	3
Hamilton	743	736	17
Hancock	41	44	13
Hardin	26	25	3
Harrison	14	12	0
Henry	17	19	12
Highland	24	24	1
Hocking	14	14	0
Holmes	9	8	6
Huron	20	20	5
Jackson	16	14	2
Jefferson	59	60	2
Knox	27	29	2
Lake	27	29	0
Lawrence	25	24	1
Licking	55	49	4
Logan	26	24	2
Lorain	101	99	29
Lucas	327	344	262
Madison	14	14	0
Mahoning	213	209	34
Marion	45	46	13
Medina	28	29	6
Meigs	12	14	1
Mercer	19	15	1
Miami	52	50	7
Monroe	6	5	0
Montgomery	311	292	47
Morgan	10	10	1
Morrow	9	11	2
Muskingum	54	56	10
Ottawa	17	17	10
Paulding	14	14	3
Perry	20	20	1
Pickaway	17	17	0
Pike	8	8	1
Portage	29	29	3
Preble	17	17	2
Putnam	28	24	7
Richland	68	70	22
Ross	42	35	3
Sandusky	38	36	14
Scioto	72	67	6
Seneca	38	41	19
Shelby	20	20	5
Stark	205	210	31
Summit	310	304	37
Trumbull	61	60	4
Tuscarawas	54	51	11
Union	17	16	4
Van Wert	20	21	6
Vinton	3	3	1
Warren	17	18	3
Washington	33	37	2
Wayne	41	39	5
Williams	18	19	8
Wood	36	37	22
Wyandot	8	9	2
Totals	6128	6001	1056

Names of Members Registered

The list of members registered by counties follows:

Adams—S. J. Ellison, Otto K. Engelke, O. T.

Sproull. **Allen**—W. W. Beauchamp, M. R. Bixel, Edgar J. Curtiss, Chas. H. Leech, M. A. Mulvania, Walter A. Noble, J. F. Ockuly, W. V. Parent, M. D. Soash, David L. Steiner, Paul J. Stueber, John E. Talbott, H. A. Thomas, J. R. Tillotson, B. W. Travis, H. C. Weisenbarger. **Ashland**—Geo. M. Emery, W. F. Emery, M. D. Shilling. **Ashtabula**—N. C. Kiefer. **Athens**—C. N. Sanders, J. L. Webb. **Auglaize**—Chas. C. Berlin, Benjamin Chavinson, E. A. Gomolski, J. E. Heap, R. C. Hunter, Elizabeth Y. Kuffner, Guy E. Noble, Harry S. Noble, J. H. Schaeffer, I. E. Williams. **Butler**—C. T. Atkinson, Fred Brosius, Mildred White Gardiner, Vera C. Iber, H. M. Lowell, Mark Millikin, W. H. Williams. **Carroll**—Lewis W. Cellio.

Champaign—D. C. Houser, F. E. Lowry. **Clark**—I. H. Boesel, A. W. Detrick, C. E. M. Finney, D. W. Hogue, A. K. Howell, C. W. Hullinger, G. M. Lane, J. A. Link, Carl D. Marsh, W. H. Miller, Alfred H. Potter, R. R. Richison. **Clermont**—A. B. Rapp. **Clinton**—Robert Conard, Kelly Hale, C. E. Kinzel. **Columbiana**—John A. Fraser, E. C. Louthan, C. J. Maxwell. **Coshocton**—F. W. Craig, S. B. Kistler, H. W. Lear, A. P. Magness, T. F. McAllister, J. G. Smailes, E. M. Wright. **Crawford**—O. R. Kackley, C. H. King.

Cleveland and Cuyahoga County—Donald G. Allen, G. I. Bauman, S. L. Bernstein, D. E. Bixby, Charles A. Bowers, A. S. Broglio, A. B. Bruner, Simon Bunin, Charles W. Burhans, H. Van Y. Caldwell, Milton B. Cohen, Ralph L. Cox, Henry A. Crawford, Ralph S. Dial, Fred W. Dixon, I. H. Einsel, C. W. Emmons, R. C. Engel, Walter A. Engel, C. W. Engler, Ryan P. Estes, Warren C. Fargo, Jos. Fetterman, Sidney Feuer, F. J. Fischer, Ralph J. Frackelton, R. M. Fullerton, Farrell T. Gallagher, Wm. P. Garver, Henry T. Gerstenberger, Donald M. Glover, Harry Goldblatt, C. Lee Graber, Harold D. Green, Jerome Gross, D. M. Harlor, Joyce I. Hartman, Harry Hauser, C. H. Heyman, Walter Heymann, Charles S. Higley, John W. Holloway, V. F. Huffman, C. R. Jablonski, Theron S. Jackson, Henry J. John, Albert L. Jones, Thomas E. Jones, Delbert V. Kechele, E. F. Kieger, O. P. Kimball, Hubert C. King, C. E. Kinney, E. Klaus, Edward M. Kline, J. C. Kloepfer, J. J. Kurlander, C. G. LaRocco, James T. Ledman, Carl H. Lenhart, Geo. H. Lewis, Fred W. Linn, William E. Lower, O. B. Markey, Robert J. May, E. P. McNamee, Myron Metzenbaum, Theodore Miller, Paul G. Moore, Harry D. Morris, M. Paul Motto, Chas. F. Nelson, C. R. Nuckolls.

Harry V. Paryzek, Clayton C. Perry, E. A. Peterson, William H. Perry, V. F. Pekarek, H. H. Pevaroff, J. C. Placak, H. D. Piercy, O. B. Pomeroy, Faith W. Reed, Edwin A. Riemenschneider, H. C. Rosenberger, Joseph M. Rossen, Boris B. Rubenstein, Albert D. Ruedemann, Scott C. Runnels, George L. Sackett, John W. Schauer, J. Schwartzberg, N. W. Shetter, Gerald S. Shibley, Otis F. Simonds, A. J. Skeel, Herman C. Smith, Frederick A. Snyder, Walter M. Solomon, W. A. Sommerfield, D. S. Spreng, Robert M. Stecher, N. M. Steiner, Geo. W. Stober, Charles W. Stone, Sidney J. Stone, Richard E. Stout, Geo. F. Sykes, Howard P. Taylor, A. W. Tramer, John Tucker, J. E. Tuckerman, Claude D. Waltz, R. M. Watkins, Justin M. Waugh, Wm. H. Weir, Theodore M. Wille, G. H. Williams, Jr., Theodore R. Willis, H. C. Wise, S. Yamshon, Walter J. Zeiter, N. L. Zinner, Theodore T. Zuck.

Darke—M. M. Kane, C. I. Stephen, O. P. Wolverton. **Defiance**—D. J. Slosser. **Delaware**—W. E. Borden, M. W. Davies. **Erie**—Wm. T. Fenker, R. E. Garnhart, A. R. Grierson, V. A. Killoran, Ross M. Knoble, J. C. Kramer, H. L. Sowash, George A. Stimson, Russell E. Taylor. **Fairfield**—R. H. Smith, W. E. Wiyiarch. **Fayette**—James M. Harsha, J. H. Persinger, James F. Wilson.

Columbus and Franklin County—K. H. Armen, Shirley Armstrong, E. H. Baxter, James A. Beer, Leslie L. Bigelow, G. H. Bonnell, Alice M. Bustin, H. M. Clodfelter, Andre Crotti, George Curtis, Horace B. Davidson, C. W. Dawson, Verne A. Dodd, S. D. Edelman, E. J. Emerick, Earl W. Euans, R. S. Fidler, Jonathan Forman, Albert D. Frost, Mary A. Graber, F. E. Hall, Walter H. Hamilton, George T. Harding, Frank W. Harrah, Harold K. Harris, I. B. Harris, A. T. Hopwood, W. D. Inglis, G. W. Keil, J. E. Kerschner, E. E. Kimmel, Herman W. Koerper, Albert Kostoff, R. B. Lawyer, H. E. LeFever, Sidney McCurdy.

Russel G. Means, Nicholas Michael, H. R. Mitchell, John H. Mitchell, W. B. Morrison, Link M. Murphy, G. I. Nelson, R. C. Obetz, W. E. Obetz, A. W. Oelgoetz, Charles W. Pavey, H. M. Platter, R. B. Plummer, Jos. Price, Dale C. Putnam, R. A. Ramsey, H. L. Reinhart, Dan G. Sanor, E. R. Shaffer, C. C. Sherburne, Chester C. Shinbach, Wynne M. Silbernagel, Kenneth D. Smith, G. H. Snyder, C. H. Solomonides, E. J. Stedem, A. R. Stone, John M. Thomas, Robert L. Thomas, E. A. Thrall, J. H. J. Upham, James H. Warren, M. Grace Welch, D. J. Whitacre, J. D. Wilson, Charlotte Winnemore.

Fulton—Lee E. Botts, L. C. CosGrove, Sr., L. C. CosGrove, Jr., Harold Heffron, Wm. H. Maddox, Geo. McGuffin, C. F. Murbach, E. A. Murbach, R. W. Reynolds, R. J. Sanderson, T. F. Smyth, A. M. Wilkins. **Geauga**—F. S. Basquin, C. F. Gilmore, H. E. Shafer. **Greene**—Ernest Ekermeyer, Ben R. McClellan, H. C. Messenger, T. F. Myler. **Guernsey**—W. L. Denny, B. A. Souders, George F. Swan.

Cincinnati and Hamilton County—M. A. Blankenhorn, Richard D. Bryant, James S. Caldwell, John A. Caldwell, B. N. Carter, J. T. Clear, S. Bertha Dauch, Howard D. Fabing, Eugene B. Ferris, Henry B. Freiberg, Harry Goldstein, J. Victor Greenebaum, Jos. Heiman, Charles D. Heisel, Mortimer Herzberg, Raymond L. Hilsinger, D. A. Johnston, Chas. E. Kiely, Edward King, Carl W. Koehler, William H. Lippert, Donald J. Lyle, Johnson McGuire, A. Graeme Mitchell, Emerson A. North, Mont R. Reid, George Renner, Jr., Geo. E. Rockwell, Bernard Safer, L. Howard Schriver, A. L. Schwartz, Otto J. Siebert, Parke G. Smith, Chas. Sonneman, F. M. Stephens, Cecil Striker, H. A. Springer, E. O. Swartz, Emil R. Swepston, William Topmoeller, Millard Wallenstein, Foster N. Williams, Carl A. Wilzbach, Jerome Zeigler, M. A. Zeligs, Samuel Zielonka, M. M. Zinninger.

Hancock—R. L. Biedermann, H. O. Crosby, Lena S. Enright, J. M. Firmin, John V. Hartman, A. E. King, D. J. King, O. P. Klotz, E. E. Rakestraw, A. J. Reycraft, R. S. Rilling, Troy A. Spitler, Frank M. Wiseley. **Hardin**—H. E. Gibson, Don R. Printz, R. G. Schutte. **Henry**—J. R. Bolles, J. H. Fiser, C. B. Geiger, B. J. George, C. M. Harrison, C. G. Hissong, B. L. Johnson, Ronald B. Kieffer, W. R. Leibschner, L. E. Overhulse, Thomas Quinn, G. M. Wright. **Highland**—H. W. Chaney. **Holmes**—A. T. Cole, J. C. Elder, A. J. Earney, Luther W. High, J. M. Jones, N. P. Stauffer.

Huron—Jay D. Bradish, Harold A. Erlenbach,

R. C. Gill, O. J. Nicholson, R. P. Scott. **Jackson**—J. J. McClung, W. R. Riddell. **Jefferson**—S. J. Podlewski, John P. Smarrella. **Knox**—F. C. Anderson, James F. Lee. **Lawrence**—Chester A. Casey. **Licking**—H. B. Anderson, Geraldine H. Crocker, G. A. Gressle, R. C. Mauger. **Logan**—F. W. Kaylor, A. J. McCracken. **Lorain**—Valloyd Adair, Waite Adair, R. M. Arnold, W. S. Baldwin, Theodore Berg, John W. Boss, S. V. Burley, Benjamin Carlson, T. F. Cushing, F. R. Dew, R. J. Emslie, E. H. Evans, C. H. Frederick, R. W. Hancock, L. H. Harris, V. C. Hart, Emil J. Heinig, W. B. Hubbell, A. J. Kirchner, I. Leonard Levin, H. C. Marsico, A. S. McKitrick, Chas. R. Meek, Lawrence C. Meredith, Geo. Mynchenberg, A. G. Siddall, R. A. Stack, John L. Sullivan, D. Thomas.

Toledo and Lucas County—M. B. Ajemian, W. W. Alderdyce, F. S. Allan, A. A. Applebaum, Paul R. Badger, W. A. Baird, Z. H. Ballmer, N. T. Barnes, Geo. W. Bascom, W. W. Beck, H. K. Beckwith, Clarence A. Berger, A. L. Bershon, R. L. Bidwell, R. E. Boice, Geo. W. Bond, Raymond J. Borer, Bernard Botsch, G. F. Bowman, W. W. Brand, Elizabeth Bremner, R. O. Brigham, Basil B. Brim, A. A. Brindley, F. B. Brockway, N. Worth Brown, H. A. Brunsting, H. G. Bruss, Thomas E. Burgess, O. W. Burkholder, Ralph M. Burton, Chas. A. Burritt, H. A. Burstein, E. W. Campbell, A. E. Canfield, Lewis R. Carr, B. H. Carroll, B. G. Chollett, Lawrence I. Clark, Frank C. Clifford, I. R. Cohn, James I. Collins, A. E. Cone, Harry G. Conn, S. J. Coulter, F. E. Coultrap, Thos. M. Crinnion, M. Cronstine, Ralph M. Crumrine, Robt. B. Curl, Ralph P. Daniells, G. F. Denyes, D. D. Delzell, Martin W. Diethelm, R. A. Diethelm, E. W. Doherty.

Leo P. Dolan, Fred M. Douglass, G. W. Dunlap, Louis Dworkin, Joseph B. Edelstein, Thos. H. Einsel, Robt. H. Elrod, Leo V. English, Paul R. Ensign, Fred L. Eyestone, F. L. Farman, Crawford L. Felker, Frank B. Ficklin, Karl D. Figley, Norman E. Fisher, O. O. Fordyce, Hugh M. Foster, D. C. Frick, David L. Friedman, Sam Friedmar, Evan G. Galbraith, Will Gardiner, John Gersten, Stanley D. Giffen, E. B. Gillette, Edward P. Gillette, Norris W. Gillette, Robert S. Gillette, W. M. Gills, Matthew Ginsburg, R. F. Glowczewski, M. E. Goodrich, James E. Gorman, J. I. Gould, W. W. Green, M. D. Haag, R. H. Hamman, A. P. Hancuff, M. C. Hanson, Walter H. Hartung, L. H. Hauman, Hazen L. Hauman, Homer H. Heath, Robert F. Heatley, Thos. Heatley.

Barney J. Hein, A. W. Hemphill, L. J. Herold, J. M. Hertzberg, Thos. F. Higgins, John F. Hillabrand, J. B. Hirsch, C. A. Hiss, Paul Hohly, W. S. Holley, Howard Holmes, Paul M. Holmes, K. R. Howard, H. F. Howe, E. W. Huffer, C. E. Hufford, J. D. Huss, A. N. Johns, Dalton Kahn, N. W. Kaiser, I. H. Kass, Philip Katz, Ellis W. Kelly, Charles R. King, Raymond C. King, H. W. Klewer, Julius Klipstein, A. H. Knisely, Howard Knisely, J. L. Kobacker, I. Krishna, Rollin Kuebbeler, A. J. Kuehn, Luette H. Kuhlman, W. L. Lathrop, B. E. Leatherman, H. P. Lee, H. B. Lehnert, L. A. Levison, M. V. Lingle, Martin R. Lorenzen, Chas. Louy, Charles Lukens, John A. Lukens, E. E. Lyon, F. A. Majewski, James A. H. Magoun, Louis L. Marcus, E. Richard Marker, Howard A. Martin, L. K. Maxwell, W. Frank Maxwell, K. C. McCarthy.

Edward J. McCormick, M. B. McGonigle, Donald F. McGrath, C. L. McKibben, J. P. McLachlin, Chas. A. McNeil, Frank B. McNierney, J. M. McWilliam, Hoyt B. Meader, Donald C. Mebane, W. H. Meffley, L. H. Mercer, Wm. M. Mewborn, Lawrence D. Miller, Richard A. Mills, J. E. Minns, E. C. Mohr, Nelson Morris, J. A. Muenzer, John T. Murphy, Norman B. Muhme, Otto K. Muhme, James E. Mullen, Carll S. Mundy, Howard J. Murphy, Foster Myers, F. N. Nagel, W. A. Neill, H. W. Nelles, F. H. Newton, Leonard Nippe, E. A. Ockuly, Josephine Orr, Frederick P. Osgood, S. H. Patterson, H. J. Parkhurst, Harry Pamment, C. J. A. Paule, L. E. Payne, B. E. Petcoff, C. A. Phillips, W. A. Phillips, C. J. Pollock, C. E. Price, Edward J. Purchla, M. D. Rabenoyich, Walter W. Randolph, J. B. Rayman, Lawrence Rayman, Glenn H. Reams, Geo. M. Reinhart, A. J. Rejent, A. J. Richie, J. L. Roberts, S. R. Salzman, A. H. Schade, M. Schaner, B. V. Schieb, Richard V. Schneider, Max T. Schnitker, J. E. Schrider, Ben H. Schulak, Harry M. Scott.

C. D. Selby, N. J. Seybold, B. G. Shaffer, Harold P. Shapiro, Wm. M. Shapiro, C. C. Shearer, Herbert M. Shellenberger, Thomas A. Simons, E. J. Singer, R. E. Sinkey, John D. Skow, R. T. Slotterbeck, W. B. Sloan, H. E. Smead, Lewis F. Smead, James H. Smith, R. H. Snyder, N. C. Spencer, A. H. Steinberg, Bernhard Steinberg, Albert L. Steinfeld, H. H. Stevens, Dudley M. Stewart, R. W. Stewart, John L. Stifel, Wade S. Stone, Frank Stukenborg, W. C. Suter, R. A. Tank, Ernest B. Taylor, T. W. Taylor, Wilbur A. Taylor, Oliver E. Todd, A. D. Vogelsang, C. W. Waggoner, E. F. Ward, M. Weinblatt, P. D. Werum, W. W. Wiedemann, Dale Wilson, I. B. Winger, John F. Wright, R. C. Young, Theodore Zbinden, S. D. Zuker.

Mahoning—W. K. Allsop, James B. Birch, W. H. Bunn, L. Geo. Coe, Alice W. Elliott, W. H. Evans, James L. Fisher, Edw. C. Goldcamp, M. H. Hawk, Morris Kalmon, Paul M. Kaufman, R. H. Middleton, S. J. Klatman, R. R. Morrall, Gordon G. Nelson, Dean Nesbit, John Noll, Jr., Claude B. Norris, R. B. Poling, Lewis K. Reed, Edward J. Reilly, Morris S. Rosenblum, S. H. Sedwitz, C. W. Sears, A. B. Sherk, Wm. M. Skipp, Ivan C. Smith, Myron H. Steinberg, E. R. Thomas, Walter J. Tims, O. J. Walker, J. J. Wasilko, Samuel W. Weaver, Wm. A. Welsh.

Marion—M. F. Axthelm, C. L. Baker, D. W. Brickley, Jr., Karl H. Feistkorn, Robert T. Gray, R. T. Morgan, H. K. Mouser, B. D. Osborn, Carl W. Sawyer, Warren C. Sawyer, C. E. Smith, Jack F. Smyth, A. A. Starner. **Medina**—John L. Jones, Irvin B. Kievit, N. J. M. Klotz, H. G. Lehrer, H. T. Pease, Morris Wilderom. **Meigs**—P. A. Jividen. **Mercer**—M. L. Downing. **Miami**—Kurt C. Becker, M. M. Brubaker, E. R. Irvin, Kenneth F. Lowry, G. A. Woodhouse, E. A. Yates, Ralph D. Yates.

Dayton and Montgomery County—Elmer R. Arn, Sterling H. Ashmun, J. K. Bailey, W. J. Blackburn, R. S. Binkley, D. R. Bieser, A. B. Brower, Herbert L. Brumbaugh, C. E. Burgett, A. W. Carley, Maurice P. Cooper, R. F. Corwin, W. E. Dapp, C. J. Derby, T. H. Dickinson, R. C. Doan, H. V. Dutrow, Robert H. Firth, E. C. Fischbein, J. D. Fouts, Walter K. Gregg, M. R. Haley, Jerome Hartman, K. W. Horn, C. Stanley Hough, Thomas F. Humphrey, E. M. Huston, H. Worley Kendell, Jos. S. Koehler, Albert F. Kuhl, M. M. Linder, J. B. Lloyd, T. E. Newell, M. D. Place, Jos. H. Prince, James Sagebiel, L. E. Seyler, Thomas P. Sharkey, Corwin A. Smith, J. D. Spaid, H. R. Stackwell, W. B. Taggart, Paul Troup, R. M. Webster, Charles Wine, Giles Wolverton, P. L. Yordy.

Morgan—A. H. Whitacre. **Morrow**—F. M. Hartsook, E. C. Sherman. **Muskingum**—Edmund

R. Brush, W. D. Coffman, W. B. Devine, Beatrice T. Hagen, M. A. Loebell, George C. Malley, Robert S. Martin, Margaret O'Neal, A. C. Ormond, Earl B. Zurbrugg. **Ottawa**—H. O. Beeman, LeRoy L. Belt, Geo. A. Boon, Wm. R. Gibson, Alexander S. Mack, F. E. Miller, E. D. Schuiteman, C. J. Wood, C. R. Wood, C. J. Yeisley. **Paulding**—L. R. Fast, F. A. McCammon, Fred E. Spragens. **Perry**—Edgar D. Allen. **Pike**—I. P. Seiler. **Portage**—E. M. Kauffman, A. J. Silbiger, Myron S. Thomas. **Preble**—J. W. Coombs, Geo. W. Flory. **Putnam**—J. R. Echelbarger, O. J. Fatum, W. D. Hickey, H. A. Neiswander, W. B. Recker, M. B. Rice, J. D. Watterson.

Richland—W. D. Abrams, L. D. Bonar, Wallace H. Buker, D. Dalton Deeds, Carl R. Damron, Geo. L. Evans, D. B. Faust, M. Lincoln Fisher, Burr M. Hathaway, J. S. Hattery, Leonard Hautzenroeder, L. C. Nigh, Howard B. Peck, Roy C. Rehder, O. H. Schettler, Charles L. Shafer, Burdett E. Shreffler, David R. Talbot, D. A. Weir, Ralph C. Wise, F. M. Wadsworth, J. A. Yoder. **Ross**—Richard L. Counts, L. T. Franklin, M. D. Scholl. **Sandusky**—Edwin B. Banister, J. C. Boyce, J. L. Curtin, Chester G. Egger, Roy K. Evans, R. Allen Eyestone, C. L. Fox, C. A. Kingman, B. O. Kreilick, Howard N. Kuhn, H. K. Shumaker, Clyde L. Smith, Chas. J. Wehr, Carl J. Wolf.

Scioto—Dow Allard, Clyde M. Fitch, James W. Fitch, Gilbert Micklethwaite, H. A. Schirrman, Joseph S. Rardin. **Seneca**—Marshall H. Aiken, C. I. Sanders, Chas. E. Bender, G. H. W. Bruggemann, L. C. Gerlinger, Theodore V. Gerlinger, J. A. Gosling, R. R. Hendershott, John M. Leahy, Paul J. Leahy, Edmund F. Ley, V. L. Magers, R. F. Machamer, B. R. Miller, J. L. Murphy, F. H. Pennell, E. H. Porter, W. F. Stewart, N. E. Williard. **Shelby**—R. W. Alvis, H. C. Clayton, Kenneth G. Hawver, Cyril C. Hussey, F. R. McVay.

Stark—H. H. Bowman, J. R. Brandon, L. A. Buchman, C. N. Clark, Wm. R. Ferraro, C. E. Fraunfelter, I. H. Fuhs, Verl Z. Garster, Chas. S. Greene, Frank E. Hart, Wm. H. Jacobson, George L. King, J. E. King, Karl L. Lehmiller, J. A. Mack, J. E. McNalley, H. S. Myers, C. M. Peters, C. A. Portz, Ray Schirack, M. E. Scott, Karl J. Simon, G. D. Underwood, J. M. Van Dyke, Howard B. Weaver, Geo. N. Wenger, W. A. White, M. E. White, Albert Wild, George F. Zinninger, Pauline Zinninger.

Summit—M. D. Ailes, Robt. T. Allison, Jr., C. L. Baskin, James G. Blower, D. C. Brennan, Ivor Campbell, Adrian E. Davis, Arthur Dobkin, P. C. Doran, Edson A. Freeman, Nathan G. Gordon, Gale C. Guthrie, B. H. Hildreth, W. L. Hogue, Jr., W. A. Hoyt, Harvey A. Karam, Jas. G. Kramer, D. B. Lowe, E. S. Lyon, R. H. Markwith, C. T. McCormish, A. S. McCormick, Harvey H. Musser, Carl C. Nohe, F. C. Potter, Chas. C. Pinkerton, R. E. Pinkerton, Fowler B. Roberts, H. V. Sharp, J. E. Springer, Carl R. Steinke, Ralph B. Tate, Joseph M. Ulrich, Edw. L. Voke, Karl D. Way, H. E. Woodbury, C. F. Wharton.

Trumbull—J. H. Caldwell, D. A. Gross, R. D. Herlinger, J. D. Knox. **Tuscarawas**—David H. Allen, John C. Blinn, Jay W. Calhoun, C. M. Dougherty, M. W. Everhard, G. I. Goodrich, Alvin Greenlee, S. T. Marshall, James A. McCollam, Mary Elizabeth Rowland, C. W. Smith. **Union**—John Dean Boylan, Fred Callaway, James M. Snider, P. D. Longbrake. **Van Wert**—S. A. Edwards, Roland H. Good, James R. Jarvis, J. B. Sampsell, Roy E. Shell, H. E. Wilkinson. **Vinton**—H. D. Chamberlain. **Warren**—Edward Blair, N. A. Hamilton, Edw. C. Morey. **Washington**—G. E. Huston, M. S. Muskat. **Wayne**—John J. Kinney, R. C. Paul, A. C. Smith, John J. Sutter, O. P. Ulrich. **Williams**—A. G. Goll, C. G. Goll, H. J. Luxan, H. R. Mayberry, W. E. McKee, H. L. Prouty, H. F. Vaughan, H. W. Wertz.

Wood—A. A. Babione, Daniel R. Barr, F. V. Boyle, H. W. Dierksheide, E. D. Foltz, S. E. Gates, F. D. Halleck, Walter A. Johnson, C. R. Marlowe, Paul F. Orr, E. A. Roswell, H. J. Powell, Wm. H. Price, W. H. Rheinfrank, D. B. Spitler, F. L. Sterling, J. J. Stitt, Helen B. Todd, H. E. Ward, Thomas W. Watson, Halford E. Whitacre, R. N. Whitehead. **Wyandot**—J. Craig Bowman, F. M. Smith.

Australia Health Insurance Scheme and Pensions Program Shelved

The government of Australia has decided to abandon completely its scheme for national health and pensions insurance, according to the Australian correspondent for *The Journal of the American Medical Association.* (April 8, 1939, issue, pages 1402-1403). Reasons advanced for this decision are: Fear that the financial burden involved may be so great as to stifle normal developmental expenditure if it is allowed to fall simultaneously with the heavy defense program to which the government is already committed; fear of the repercussions from the cost of insurance while the greater part of the commonwealth is suffering from the effects of severe drought and widespread bush fires; and recognition of the fact that throughout Australia the health insurance act is highly unpopular and that its introduction against the wishes of the people may lead ultimately to grave political consequences.

Coming Meetings

American Association of Industrial Physicians and Surgeons, Cleveland, June 5-8.

American Neurological Association, Atlantic City, June 5-7.

American Congress of Obstetrics and Gynecology, Cleveland, Sept. 11-15.

American Ophthalmological Society, Hot Va., June 5-7.

American Orthopedic Association, Buffalo, N. Y., June 5-8.

American Proctologic Society, Brooklyn, N. Y., June 25-27.

National Gastroenterological Association, New York, June 1-2.

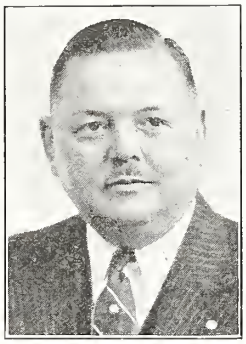
National Tuberculosis Association, Boston, June 26-29.

Meet the New Members of The Council!

Interesting Biographical Data About Those Elected at Ninety-Third Annual Meeting To Serve for First Time on Governing Board of State Association

FOUR new Councilors were elected by the House of Delegates at the recent Ninety-Third Annual Meeting of the Ohio State Medical Association at Toledo.

To acquaint the membership with the new members of the governing board of the State Association, *The Journal* has the honor to publish the pictures of the new Councilors and a brief biographical sketch of each.



Ralph L. Rutledge, M.D.



Carl Goehring, M.D.



George F. Swan, M.D.



Samuel V. Burley, M.D.

Sixth District—New Councilor of the Sixth District, comprising Mahoning, Columbiana, Trumbull, Portage, Summit and Stark counties, is Dr. **Ralph L. Rutledge, Alliance,** who succeeds Dr. William M. Skipp, Youngstown, the new President-Elect. Dr. Rutledge was born in Augusta, Ohio, September 15, 1892. Following his graduation from the McKeesport, Pa., High School, he entered the University of Pittsburgh where he obtained his bachelor of science degree in 1914 and his doctor of medicine degree in 1916. After an internship at the Allegheny General Hospital, Pittsburgh, Dr. Rutledge enlisted in the orthopedic branch of the Medical Corps, U.S.A. After active service in this country and in France, Dr. Rutledge was honorably discharged in June, 1919, with the rank of captain. Dr. Rutledge is specializing in orthopedic surgery, having taken postgraduate work at Harvard Medical School and the New York Orthopedic Hospital. He is married and the father of one son and one daughter. Dr. Rutledge is a member of various Masonic orders; member and elder of the Presbyterian Church; member of Phi Rho Sigma Fraternity; member and past-president of the Alliance Rotary Club; and member of the staff of the Alliance City Hospital, having served as president of the staff from 1935 to 1937. He is past-president of the Stark County Medical Society and a fellow of the American Medical Association. His term of office on The Council is for two years.

* * *

Seventh District—Elected to The Council to complete the unexpired term (one year) of Dr. C. W. Kirkland, Bellaire, who resigned because of illness, is Dr. **Carl Goehring, Steubenville.** Dr. Goehring, 49 years of age, is a native of Grand Island, Nebraska, and a graduate of the University of Michigan Medical School (1915). Dr. Goehring completed his internship at St. Francis Hospital, Pittsburgh, in 1916, after which he was a resident in pathology and bacteriology at Mercy Hospital, Pittsburgh, and later held a fellowship in pathology at the University of Pittsburgh. In October, 1917, Dr. Goehring was called to active service with the Medical Corps, U.S.A., first at the Army Medical School, Washington; then at Fort Benjamin Harrison where he was placed in charge of the laboratories and promoted to the rank of captain; and later with the A.E.F. in France. Dr. Goehring served as assistant pathologist and later pathologist at St. Francis Hospital, Pittsburg, during 1919 and 1920; also demonstrator in pathology at the University of Pittsburgh. He entered the Mayo Foundation as a fellow in surgery on September 15, 1921, and two years later entered private practice at Steubenville. Dr. Goehring is a fellow of the American Medical Association, American College of Surgeons and American Society of Clinical Patholo-

gists, and a member of Nu Sigma Nu Fraternity. He was married in 1921. Dr. Goehring is a former president of the Jefferson County Medical Society and has served on all the important committees of that society, having been active in local and district medical affairs. Dr. Goehring's district comprises Jefferson, Carroll, Tuscarawas, Harrison, Belmont, Monroe and Coshocton counties.

* * *

Eighth District—As Councilor of the Eighth District for a term of two years, the House of Delegates elected **Dr. George F. Swan, Cambridge,** succeeding Dr. E. R. Brush, Zanesville. Dr. Swan was born on a farm in Guernsey County in 1889. He was educated in the public schools of that county and Muskingum College, and graduated from the College of Medicine, Ohio State University in 1918. He served as a commissioned officer in the U. S. Navy during the World War, entering private practice in Cambridge in the Fall of 1919. Dr. Swan has held all the offices of the Guernsey County Medical Society and various committee posts. He is a fellow of the American Medical Association and the American College of Surgeons and associated with his brother, Dr. Reo M. Swan, in the Swan Hospital, Cambridge. Dr. Swan will serve as Councilor for the following counties: Guernsey, Muskingum, Licking, Fairfield, Perry, Athens, Morgan, Washington and Noble. Dr. Brush, who had served many years as a member of The Council, requested that his name not be placed in nomination to succeed himself as Councilor of the Eighth District.

* * *

Eleventh District—Councilor of the newly-created Eleventh District, composed of Lorain, Erie, Huron, Medina, Richland, Ashland, Wayne and Holmes counties is **Dr. Samuel V. Burley, Lorain.** Dr. Burley, whose term will be for one year, is a native of Crooksville, Ohio, where he received his early education. He is 64 years of age. After attending the National Normal University, Lebanon, and Valparaiso University, Valparaiso, Indiana, Dr. Burley entered the Medical College of Ohio, Cincinnati, where he graduated in 1897. After four years of practice in Wood County, he took postgraduate work in New York City and in Europe. Dr. Burley located in Lorain in 1904 and has been specializing in eye, ear, nose and throat work since 1914. He is a fellow of the American Medical Association and has held all the important offices of the Lorain County Medical Society, including two terms as president. Dr. Burley, a veteran member of the House of Delegates, is active in civic affairs, being at present president of the Lorain Board of Education.

Pioneer Doctors

The entire program of the April meeting of the Section on Medical History and Archives of the Ohio Archaeological and Historical Society in which eight outstanding authorities painted a picture of the physicians in the pioneer days of Ohio (1787-1835) will be published in the July issue of the *Ohio Archaeological and Historical Quarterly.*

Single copies of this issue can be purchased for 75 cents provided a prepublication order is sent to Dr. Harlow Lindley, editor, at the Museum of the Society on the campus of the Ohio State University in Columbus. It is proposed to follow through other epochs in the same manner, so in time to have an interpretative history of Ohio Medicine. If you or any of your friends have any interest in Ohio Medicine, you will want this issue in your library.

Northern Tri-State Society Elects

Approximately 400 physicians from Ohio, Michigan and Indiana attended the annual meeting of the Northern Tri-State Medical Association, April 11, at South Bend, Indiana. New officers of the association are: Dr. D. R. Brasie, Flint, Mich., president; Dr. Burt Hibbard, Lima, vice-president; Dr. E. B. Gillette, Toledo, secretary; Dr. L. T. Rawles, Ft. Wayne, Indiana, treasurer. Four counselors were re-elected. They are: Dr. O. P. Klotz, Findlay; Dr. H. E. Randall, Flint, Mich.; Dr. Douglas Donald, Detroit, Mich.; and Dr. G. O. Larson, LaPorte, Indiana. Dr. H. C. Weisenbarger, Lima, and Dr. F. R. Carter, South Bend, Indiana, are new counselors. Next year's meeting will be held in Battle Creek, Mich.

Electrocardiography Course

An intensive course in electrocardiography will be given at Michael Reese Hospital, Chicago, August 21 to September 2, by Dr. Louis N. Katz, director of cardiovascular research. The course is offered especially for general practitioners. Group and individual instruction will be given. The fee for the two weeks' course is $100, and the class will be limited in number. Reservations may be made upon receipt of $10 which will be applied on the tuition. An hourly program of the course will be sent on request to Michael Reese Hospital, Cardiovascular Department, 29th and Ellis Ave., Chicago, Ill.

Named by Social Hygiene Society

Dr. Richard W. Weiser, medical director of public schools in Kenmore, N.Y., has been appointed executive secretary of the Cincinnati Social Hygiene Society, succeeding Dr. Carl A. Wilzbach, city health commissioner. Dr. Weiser graduated at the University of Pennsylvania School of Medicine, Philadelphia, in 1927.

Proceedings of The Council

Business Transacted at Meeting in Toledo on the Eve of the Ninety-Third Annual Meeting of the Ohio State Medical Association

A REGULAR meeting of The Council of the Ohio State Medical Association was held at the Commodore Perry Hotel, Toledo, Tuesday evening, May 2, 1939, the evening preceding the opening of the Annual Meeting of the Ohio State Medical Association. Those attending the dinner and meeting were: President Hein, President-Elect Smith, Treasurer Beer; Councilors Schriver, Hogue, Klotz, McCormick, McNamee, Skipp, Brush, Seiler and Sherburne; Dr. Forman, Editor of *The Journal;* Dr. A. A. Brindley, general chairman of the Toledo Committees on Local Arrangements; Dr. Carll S. Mundy, president, Toledo Academy of Medicine; members of the Standing Committees of the State Association; delegates to the American Medical Association; and Executive Secretary Nelson.

On **motion** by Dr. Seiler, seconded by Dr. Smith and **carried**, minutes of The Council meeting held on March 12, 1939, as published in the April, 1939, issue of *The Ohio State Medical Journal*, were **approved.**

It was announced that the membership of the State Association as of May 2, 1939, was 5,979, compared to 5,704 on the same date a year ago and to 6,128 as of December 31, 1938.

Members of The Council reported on activities in their respective councilor districts.

A communication from Dr. C. W. Kirkland, Councilor of the Seventh District, who is ill, in which he submitted his resignation as a member of The Council, was read. On **motion** by Dr. Sherburne, seconded by Dr. McCormick and **carried**, The Council accepted Dr. Kirkland's resignation with regret and wished him a speedy recovery. On **motion** by Dr. Smith, seconded by Dr. Skipp and **carried**, the vacancy created through the resignation of Dr. Kirkland was referred by The Council to the House of Delegates, scheduled to meet on May 3 and 4.

ANNUAL MEETING

Final reports on the program and local arrangements for the 93rd Annual Meeting, scheduled to open on the following day, were submitted by Dr. Albert F. Kuhl, Dayton, chairman of the Committee on Scientific Work; Dr. A. A. Brindley, general chairman, Toledo Committees on Arrangements; and Dr. Carll S. Mundy, president of the Toledo Academy of Medicine.

EXPANSION PROGRAM

A proposed resolution, recommending the adoption of the expansion program suggested by The Council and a $2.00 increase in the per capita annual dues to make such a program effective, was discussed. On **motion** by Dr. Smith, seconded by Dr. Skipp and **carried**, the resolution was **approved** by The Council and Dr. Smith was instructed to introduce the resolution for The Council at the first session of the House of Delegates on May 3.

LEGISLATIVE DEVELOPMENTS

The Executive Secretary submitted reports on the present situation in the Ohio General Assembly and on developments at Washington, the latter dealing primarily with the proposed Wagner National Health Act. A general discussion followed. Dr. Hein reported that the Ohio State Medical Association had requested to be heard on the Wagner bill before the sub-committee of the United States Senate Committee on Education and Labor, but that no date, as yet, had been set at which a representative of the Association would be present to register objections to the enactment of the proposal.

WORKMEN'S COMPENSATION

Dr. D. B. Lowe, Akron, chairman of the Sub-Committee on Workmen's Compensation, analyzed the recent Ohio Supreme Court decision regarding occupational diseases (see pages 535-536 of the May, 1939, issue of *The Ohio State Medical Journal)*, and an agreed bill, Senate Bill 297, expanding the coverage of the occupational disease sections of the Workmen's Compensation Act to meet provisions of the court decision.

Dr. Skipp, on behalf of a group of Ohio dermatologists, presented a communication requesting representatives of the Ohio State Medical Association to confer with the State Industrial Commission regarding a modification of the rule of the Commission which provides that physiotherapy treatments must first be approved by the Commission, especially with respect to the use of X-ray and ultra-violet light. On **motion** by Dr. Klotz, seconded by Dr. Skipp and **carried**, the communication was referred to the Sub-Committee on Workmen's Compensation for study and recommendations.

REPORT OF COMMITTEE ON EDUCATION

A report on the joint meeting of the Committee on Education, Sub-Committee on Regional Postgraduate Lectures and Sub-Committee on Public Health Education, held in Columbus on Sunday, April 16, 1939, was presented to The Council on behalf of Dr. C. L. Cummer, Cleveland, chairman of the Committee on Education.

The suggestions and recommendations contained in the report were **approved** by The Council on **motion** by Dr. Smith, seconded by Dr. Klotz and **carried.**

REPORT OF JUDICIAL AND PROFESSIONAL RELATIONS COMMITTEE

Dr. Leslie L. Bigelow, Columbus, chairman of the Judicial and Professional Relations Committee, reported on developments to date in the investigation being carried on by the committee involving the solicitation by an Ohio hospital of indigent patients in counties adjoining that in which the hospital is located. On **motion** by Dr. Sherburne, seconded by Dr. Seiler and **carried,** the committee chairman was instructed to write the proper officials of the hospital in an effort to correct the situation, and to report results at a subsequent meeting of The Council.

MISCELLANEOUS

Pro-Rating Dues—On **motion** by Dr. Smith, seconded by Dr. Sherburne and **carried,** the Executive Secretary was instructed to collect pro rata dues for new members on the basis of $3.00 for the period of July 1 to September 30, inclusive; and on the basis of $2.00 from October 1 to December 31, inclusive; it being understood that the full $5.00 dues should be collected from reaffiliating members.

Personnel Committee—On **motion** by Dr. Smith, seconded by Dr. McCormick and **carried,** the President was instructed to appoint a special committee empowered to employ additional personnel in the State Headquarters Office to put the expansion program into effect immediately, should the House of Delegates, at its meeting on May 4, approve such program. In compliance with the motion, Dr. Hein appointed the following committee: President-Elect Smith, Councilor Sherburne, Dr. Forman, Editor of *The Journal,* and the Executive Secretary.

Suit for Rent—The Executive Secretary reported that the court had rendered a decision favorable to the State Association in a suit filed by a former landlord to collect rent alleged to be due him from this Association, which suit had been contested by the Association.

Expression of Appreciation—On **motion** by Dr. Schriver, seconded by Dr. Sherburne, The Council, by a rising vote, expressed its sincere appreciation to Dr. Hein for his splendid services during his term of office as President and for the kind consideration given by him to all members of The Council.

There being no further business, The Council recessed to meet with the House of Delegates on Wednesday morning, May 3.

Attest: CHARLES S. NELSON,
Executive Secretary.

Two Bills Sponsored by Ohio State Medical Association Are Passed by Assembly and Signed by Governor

Two bills sponsored and actively supported by the Ohio State Medical Association in the Ninety-Third Ohio General Assembly have been passed by the Assembly, signed by Governor Bricker and will become effective at the expiration of the 90-day period of grace.

Senate Bill 97, introduced by Dr. H. T. Phillips, Athens, was signed by the Governor on April 24 and will become a law on July 25, 1939. This measure amends the Medical Practice Act to require all applicants for medical and surgical or osteopathic and surgical licenses in Ohio through examination to have two years of collegiate work in an approved school of arts and sciences in addition to a degree from an approved medical or osteopathic school; to require applicants for an Ohio license through reciprocity to meet the same requirements as applicants for a license by examination; and to divide the fines collected through prosecutions between the state and the county or city in which the offense was committed. An applicant holding a license in a foreign country or degree from a foreign medical school will be required to meet the two-year pre-medical provision and in addition to comply with a regulation of the State Medical Board requiring him to have made an application for first citizenship papers. Also, the Board under general powers granted by the Medical Practice Act will have the right to determine whether an applicant from a foreign country has had sufficient pre-medical training and whether the foreign school in which he took such work can be recognized by the Board as an "approved school". This bill was sponsored by the State Medical Association at the request of the State Medical Board. According to the Board it will clarify important provisions of the Medical Practice Act, enhance administration of the act, and greatly assist the Board in weeding out those with inferior training and education from the list of applicants for an Ohio license.

House Bill 301, introduced by Dr. E. LeFever, Athens, was approved by the Governor on May 17 and will become a law on August 17. This law will increase the size of the Ohio Public Health Council from four to six members, three of whom shall be doctors of medicine; give the council more power and authority over the activities of the State Department of Health; provide a five-year term for the State Director of Health who will be appointed by the Governor from a list of six qualified persons submitted by the council; and make necessary corrective and clarifying changes in the present health laws of Ohio. The effect of the proposal will be to increase the efficiency of the State Depart-

ment of Health and provide a continuity of personnel and policy within the department so that a better public health program for the state can be formulated and carried out. The proposal was sponsored and actively supported by the Ohio State Medical Association and the Ohio Public Health Association, assisted by local health officials, nurses' organizations, and other groups interested in public health work.

At the time the June issue went to press, the General Assembly still was in session but planning to adjourn at an early date. A complete round-up story on the proceedings of the Assembly with respect to medical and public health bills and other proposals of interest to physicians will be published in the July issue of *The Journal*.

F.S.A. Medical Care Programs in Operation in 13 Counties; Data on Services Rendered Analyzed

Medical societies in 13 Ohio counties have adopted plans for the medical care of Farm Security Administration clients, according to a recent report of A. L. Sorensen, FSA director for Ohio. The counties are: Pike, Portage, Union, Logan, Champaign, Fayette, Geauga, Delaware, Hardin, Paulding, Perry, Clermont and Madison. There are 2,063 familiies being aided by FSA in these counties.

Pike, Portage, Union, Logan, Champaign and Fayette counties have 1,038 client families. As of February 1, 266 in these six counties had secured medical care loans or made their deposits from personal funds. Of this number of participating families, Logan County has 116; Pike, 60; Portage, 32; Union, 24; Champaign, 28; and Fayette, 6. There were 154 families who had named their physicians but had not secured loans. In many cases, loans were in the process of being made at the time the report was compiled.

The number of persons in the 266 participating families was 1,233, an average of 4.7 persons per family. The amount of funds deposited or requested by this group was $7,304.50, or $5.92 per person.

A total of 103 physicians are participating in the FSA medical program in these six counties, the first to have their plans in actual operation. Quarterly reports for the period, October to December, 1938, inclusive, have been submitted by trustees of the medical care fund in Pike, Union and Logan counties.

From July to December, 1938, inclusive, $267 has been disbursed by the trustee in Pike County. There were 71 office calls and 25 home calls, and 51 persons in 27 families received medical attention. Three families spent all of the funds allocated for their medical care.

In Union County, nine families spent $101.75 during the three-month period of October to December, inclusive. This amount was for 41 office calls and 7 home calls. There were 25 persons in the nine families who received medical treatment.

The report of the trustee of the FSA medical care fund in Logan County, indicated that 16 families spent $183.05 during the three-month period, October to December, inclusive. This amount was in payment for 45 office calls and 26 home calls. The number of persons provided with medical attention numbered 26. Four families have spent all of their allotment for medical care.

Since February 1, Farm Security Administration officials have assisted county medical societies in starting the medical programs in Delaware, Geauga, Hardin, Perry, Madison and Paulding counties. It is the policy of the FSA to include medical care loans with all initial or supplemental loans, unless there are substantial reasons for not including them. Supervisors in counties where medical programs have been established report that almost all applicants select their own physician and apply for a medical loan.

FSA officials state that "the interest of the cooperating physicians is splendid and that their cooperation is doing much to help make the program a success".

Licensed in Ohio By Reciprocity

The following physicians were recently licensed by the State Medical Board, through reciprocity, to practice medicine and surgery in Ohio: Dr. John B. Bartram, Cincinnati, Harvard University; Dr. Marion E. Black, Cleveland, University of Pennsylvania; Dr. Dominic P. Caravona, Cleveland, St. Louis University; Dr. Isadore H. Claybon, Cincinnati, University of Cincinnati; Dr. John S. Goldcamp, Youngstown, Jefferson Medical School; Dr. Walter G. Goodman, Massillon, Jefferson Medical School; Dr. Edward F. Hellwig, Cleveland, St. Louis University; Dr. Albert J. Helm, Toledo, St. Louis University; Dr. Floyd B. Kantzer, Quaker City, Rush Medical College; Dr. Louis W. Ladd, Cleveland, Johns Hopkins University; Dr. Monroe H. Little, Zanesville, Meharry Medical College; Dr. Max Miller, Cleveland, Yale University; Dr. Robert H. Mooney, Lakewood, St. Louis University; Dr. Allison J. O'Brien, Cleveland, St. Louis University; Dr. Robert W. Pocotte, Toledo, Emory University; Dr. William T. Preston, Toledo, University of Louisville; Dr. Frederick C. Schlumberger, Cleveland, University of Nebraska; Dr. Stephen A. Szabo, Cleveland, St. Louis University; Dr. J. Warrick Thomas, Cleveland, University of Georgia; Dr. William J. Habeeb, Mt. Vernon, Johns Hopkins University; Dr. Erhardt Weltmann, Cleveland, Friedrich-Wilhelms University.

Ninety-Third Annual Meeting at Toledo One of Finest and Best-Attended in History of the Association

NINETY-THIRD Annual Meeting of the Ohio State Medical Association at Toledo, May 3-4, marked a significant milestone in the history of organized medicine in Ohio.

The inclusion of round-table conferences in the scientific program made it one of the most practical ever presented at a state meeting. Enthusiasm for this innovation assures these conferences a prominent place in future Annual Meeting programs.

Attendance at the meeting was much larger than anticipated, over 200 more members being registered than at any previous meeting in Toledo.

The action of the House of Delegates in approving the Association's expansion program means a continuation of the constructive policies which characterized the aggressive leadership of Dr. Barney J. Hein's administration.

Praise for Those Who Handled Program and Arrangements

Much of the credit for the successful meeting deservedly goes to the Committee on Scientific Work of the State Association; the Committee on Local Arrangements of the Toledo Academy of Medicine, and the officers of the sections.

Members of the Committee on Scientific Work were: Dr. Albert F. Kuhl, Dayton, chairman; Dr. C. C. Sherburne, Columbus; Dr. Claude B. Norris, Youngstown; Dr. Stanley D. Giffen, Toledo; and Dr. Max M. Zinninger, Cincinnati.

The Local Committee on Arrangements of the Toledo Academy of Medicine, consisted of: Dr. A. A. Brindley, general chairman; Reception: Dr. A. L. Steinfeld, chairman; Dr. Benj. H. Carroll, Dr. Thomas M. Crinnion, Dr. Ralph P. Daniells, Dr. John R. Davis, Dr. E. W. Doherty, Dr. Fred M. Douglass, Dr. Will Gardiner, Dr. E. B. Gillette, Dr. Thos. F. Heatley, Dr. Luette H. Kuhlman, Dr. Charles Lukens, Dr. A. H. Schade, Dr. C. D. Selby, Dr. John L. Stifel, Dr. Lewis F. Smead and Dr. C. W. Waggoner. Halls and Meeting Places: Dr. L. D. Miller, chairman; Dr. M. W. Diethelm, Dr. Robert H. Elrod, Dr. T. C. Kiess, Dr. J. A. Magoun and Dr. B. G. Shaffer. Annual Banquet: Dr. Leo P. Dolan, chairman; Dr. Karl D. Figley, Dr. Wm. A. Neill, Dr. S. H. Patterson and Dr. Harry M. Scott. Projection Apparatus: Dr. C. E. Hufford, chairman; Dr. M. E. Goodrich and Dr. Dalton Kahn. Hobby Exhibit: Dr. Paul Hohly, chairman; Dr. John T. Murphy and Dr. Thomas L. Ramsey. Entertainment for Women Guests: Mrs. Carll S. Mundy, chairman; Mrs. A. A. Brindley, Mrs. Thomas H. Brown, Mrs. John R. Davis; Mrs. Karl D. Figley, Mrs. C. E. Hufford, Mrs. Louis A. Levison, Mrs. Edward J. McCormick, Mrs. F. B. McNierney, Mrs. L. D. Miller, Mrs. Richard A. Mills and Mrs. Glenn H. Reams.

Meetings of House of Delegates Well Attended; Business Reviewed

Opening session of the House of Delegates, Wednesday morning, was attended by 109 of the 134 certified delegates, including representatives of 63 county medical societies. (Complete minutes of the House of Delegates proceedings appear on pages 638 to 647 of this issue of *The Journal*).

Dr. Carll S. Mundy, president of the Toledo Academy of Medicine, opened the session by welcoming the delegates and presenting Dr. Barney J. Hein, Toledo, President of the State Association, who then delivered his Presidential Address, entitled, "A Good Offense is the Best Defense". (Complete text of Dr. Hein's address appears on pages 630 to 636, this issue of *The Journal*).

Reference committees were appointed by Dr. Hein, and annual reports of officers and committees published in the April, 1939, issue of *The Journal*, were submitted to the Reference Committee on Annual Reports. Following the election of the Nominating Committee, a number of resolutions were introduced and referred to the Reference Committee on Resolutions.

The Association's By-Laws were then amended permitting the creation of any number of councilor districts by the House of Delegates. A redistricting plan recommended by The Council, establishing one new district, was then approved.

NEXT MEETING IN CINCINNATI

Final session of the House of Delegates was held Thursday afternoon, following a luncheon for delegates and members of the Toledo Committee on Arrangements. There were 109 delegates at the final session, including Officers and Councilors of the Association, and representatives of 65 counties.

Cincinnati was selected as the place for the 1940 meeting, the meeting to be held in the Spring, on dates to be selected by The Council.

The report of the Reference Committee on Resolutions was adopted. The resolutions covered the following subjects: Opposition to the Wagner Health Bill, S.B. 1620, and approval of previous statement of policy of The Council on that subject; disapproval of H.B. 188, proposing to create a separate State Nurses' Ex-

amining and Licensing Board; approval of the principle of a Woman's Auxiliary to the Ohio State Medical Association and directed The Council to devise plans for the establishment of such organization; directed The Council to study the problem of the payment for medical care of indigents injured in motor vehicle accidents and to report its findings at the 1940 Annual Meeting of the Association; increased annual dues of the State Association from $5 to $7 effective January 1, 1940, so as to provide funds for the expansion program, including the establishment of a public relations department.

NEW OFFICERS ELECTED

Dr. Wm. M. Skipp, Youngstown, completing his fourth year as Councilor for the Sixth District, was unanimously elected President-Elect.

The following Councilors were re-elected for two-year terms: Dr. D. W. Hogue, Springfield, Second District; Dr. E. J. McCormick, Toledo, Fourth District, and Dr. C. C. Sherburne, Columbus, Tenth District.

Dr. Ralph L. Rutledge, Alliance, was elected Councilor for the Sixth District, succeeding Dr. Wm. M. Skipp, Youngstown, named President-Elect.

The new Councilor for the Eighth District is Dr. George F. Swan, Cambridge, succeeding Dr. E. R. Brush, Zanesville, who served in The Council for many years. Dr. Brush requested the Nominating Committee that his name be not considered for re-election.

Dr. Carl Goehring, Steubenville, was elected to serve the unexpired term of one year of Dr. C. W. Kirkland, Bellaire, Councilor for the Seventh District, who resigned because of ill health.

Dr. S. V. Burley, Lorain, was elected to serve for one year as Councilor for the newly-created Eleventh District.

Dr. Barney J. Hein, Toledo; Dr. C. E. Kiely, Cincinnati, and Dr. Claude B. Norris, Youngstown, were elected delegates to the American Medical Association. Delegates whose terms hold over are: Dr. Charles W. Stone, Cleveland; Dr. E. R. Brush, Zanesville; Dr. Carl R. Steinke, Akron, and Dr. Ben R. McClellan, Xenia.

Alternate delegates elected were: Dr. Dow Allard, Portsmouth; Dr. Charles R. Meek, Lorain, and Dr. E. O. Swartz, Cincinnati. Hold over alternate delegates are: Dr. C. C. Sherburne, Columbus; Dr. D. W. Hogue, Springfield; Dr. V. N. Marsh, Painesville, and Dr. John B. Alcorn, Columbus.

COMMITTEE APPOINTMENTS

Following his installation as President by Dr. Hein, Dr. Parke G. Smith, Cincinnati, announced the following committee appointments, which were approved by the House of Delegates: Dr. D. B. Lowe, Akron, member of the Committee on Public Relations and Economics, for a term of five years, and chairman for the ensuing year; Dr. S. H. Ashmun, Dayton, member of the Committee on Education for a term of five years, and Dr. Clyde L. Cummer, Cleveland, to be chairman for the ensuing year; Dr. Fred W. Dixon, Cleveland, member of the Committee on Scientific Work for a term of five years, and Dr. Claude B. Norris, Youngstown, to be chairman for the ensuing year; Dr. Howard D. Fabing, Cincinnati, member of the Committee on Judicial and Professional Relations for a term of five years, and Dr. Leslie L. Bigelow, Columbus, to be chairman for the ensuing year.

Guest Speakers and Those Who Addressed Sections

Guest speakers at the General Sessions were: Dr. Anthony J. Lanza, Dr. Herman O. Mosenthal and Dr. W. W. Herrick, New York City; Dr. Elliott C. Cutler, Boston, Mass.; Dr. Bradley M. Patten, Ann Arbor, Mich.; Dr. Allen F. Voshell, Baltimore, Md., and Dr. Elmer L. Sevringhaus, Madison, Wis.

Officers of the scientific sections and essayists were:

Section on Medicine—Dr. John Noll, Jr., Youngstown, chairman, and Dr. Wm. P. Garver, Cleveland, secretary. Essayists: Dr. John L. Stifel, Toledo; Dr. Eugene B. Ferris, Jr., Cincinnati; Dr. Charles S. Higley, Cleveland; Dr. Harry Hauser, Cleveland; Dr. Robert M. Stecher, Cleveland; Dr. Walter M. Solomon, Cleveland, and Dr. James R. Reeves, Columbus.

Section on Eye, Ear, Nose and Throat—Dr. Fred W. Dixon, Cleveland, chairman, and Dr. Ralph E. Boice, Toledo, secretary. Essayists: Dr. W. H. Evans, Youngstown; Dr. Ralph J. Frackelton, Lakewood; Dr. F. Bruce Fralick, Ann Arbor, Michigan; Dr. George L. King, Alliance, and Dr. M. Paul Motto, Cleveland.

Section on Obstetrics and Gynecology—Dr. Howard P. Taylor, Cleveland, chairman, and Dr. R. C. Doan, Miamisburg, secretary. Essayists: Dr. Richard D. Bryant, Cincinnati; Dr. B. B. Rubenstein, Cleveland; Dr. T. T. Zuck, Cleveland, and Dr. J. C. Placak, Cleveland. Summary and discussion by Dr. Wm. H. Weir, Cleveland, and Dr. Robt. Lee Faulkner, Cleveland.

Section on Surgery—Dr. W. K. Allsop, Youngstown, chairman, and Dr. John V. Hartman, Findlay, secretary. Essayists: Dr. B. N. Carter, Cincinnati; Dr. Fred M. Douglass, Toledo; Dr. John W. Holloway, Cleveland; Dr. Leo P. Dolan, Toledo, and Dr. Samuel Wood Weaver, Youngstown.

Section on Pediatrics—Dr. Lawrence I. Clark, Toledo, chairman, and Dr. W. B. Taggart, Dayton, secretary. Essayists: Dr. Stanley Cohen,

Cleveland (by invitation); Dr. A. W. Carley, Dayton; Dr. Frank C. Clifford, Toledo; Dr. Jas. G. Kramer, Akron, and Dr. Walter Heymann, Cleveland.

Section on Nervous and Mental Diseases—Dr. A. T. Hopwood, Orient, chairman, and Dr. Richard E. Stout, Cleveland, secretary. Essayists: Dr. N. W. Kaiser, Toledo; Dr. Harry E. LeFever, Columbus; Dr. Howard D. Fabing, Cincinnati; Dr. Oscar B. Markey, Cleveland, and Dr. Joseph L. Fetterman, Cleveland.

Leaders of the Successful Round-Table Conferences

Leaders of Round-Table Conferences were: Dr. M. M. Zinninger, Cincinnati; Dr. Elliott C. Cutler, Boston, Mass.; Dr. Edward C. Goldcamp, Youngstown; Dr. Mont R. Reid, Cincinnati; Dr. George M. Curtis, Columbus; Dr. B. N. Carter, Cincinnati; Dr. Jean M. Stevenson, Cincinnati; Dr. Theodore Miller, Cleveland; Dr. George L. Sackett, Cleveland; Dr. Cecil Striker, Cincinnati; Dr. Thomas P. Sharkey, Dayton; Dr. James H. Warren, Columbus; Dr. Joseph L. Fetterman, Cleveland; Dr. N. W. Kaiser, Toledo; Dr. Nicholas Michael, Columbus; Dr. Milton B. Cohen, Cleveland; Dr. Karl D. Figley, Toledo; Dr. Lloyd E. Seyler, Dayton; Dr. Henry J. Gerstenberger, Cleveland; Dr. A. Graeme Mitchell, Cincinnati; Dr. E. R. Thomas, Youngstown; Dr. Judson D. Wilson, Columbus; Dr. Herbert W. Kendell, Dayton; Dr. Sidney M. McCurdy, Columbus; Dr. H. J. Parkhurst, Toledo; Dr. Anthony J. Lanza, New York, N. Y.; Dr. Charles L. Baskin, Akron; Dr. George I. Nelson, Columbus; Dr. Herman O. Mosenthal, New York, N. Y.; Dr. Wm. H. Bunn, Youngstown; Dr. M. A. Blankenhorn, Cincinnati; Dr. James M. Ruegsegger, Cincinnati; Dr. Gerald S. Shibley, Cleveland; Dr. Charles W. Pavey, Columbus; Dr. Joseph D. Heiman, Cincinnati; and Dr. M. D. Haag, Toledo.

Excellent Technical Exhibit; List of Firms Represented

All available space in the Crystal Room of the Commodore Perry Hotel was utilized for exhibits of surgical and X-ray equipment, medical books, pharmaceutical supplies, etc. Representatives of the companies which displayed their products were generally well-pleased with arrangements and the patronage which they obtained during the meeting.

Companies which had technical exhibits at the Toledo meeting were: Arlington Chemical Company, Yonkers, New York; Cameron's Surgical Specialty Company, Chicago, Illinois; S. H. Camp & Company, Jackson, Michigan; Coca-Cola Company, Atlanta, Georgia; Davies, Rose & Company, Ltd., Boston, Mass.; Devereux Schools, Inc., Berwyn, Pa.; DeVilbiss Manufacturing Company, Toledo; General Electric X-Ray Corporation, Chicago, Illinois; Gerber Products Company, Fremont, Michigan; H. J. Heinz Company, Pittsburgh, Pa.; Holland-Rantos Company, Inc., New York City; Horlick's Malted Milk Corporation, Racine, Wisconsin; Jones Metabolism Equipment Co., Chicago, Illinois; Lederle Laboratories, New York City; Lepel High Frequency Laboratories, Inc., New York City; Liebel-Flarsheim Company, Cincinnati; Eli Lilly & Company, Indianapolis, Indiana; J. B. Lippincott Company, Philadelphia, Pa.; M & R Dietetic Laboratories, Inc., Columbus; Mead Johnson & Company, Evansville, Ind.; Medical Protective Company, Wheaton, Illinois; Mellin's Food Company, Boston, Mass.; Merck & Company, Rahway, New Jersey; Wm. S. Merrell Company, Cincinnati; C. V. Mosby Company, St. Louis, Mo.; Muller Laboratories, Baltimore, Md.; Parke, Davis & Company, Detroit, Michigan; Petrolagar Laboratories, Inc., Chicago, Illinois; Philip Morris & Company, New York City; Rupp & Bowman Company, Toledo; S. M. A. Corporation, Chicago, Illinois; W. B. Saunders Company, Philadelphia, Pa.; Scheer & Burke, X-Ray Sales Company, Cleveland; Sklar Mfg. Company, Brooklyn, New York; U. S. Standard Products Co., Woodworth, Wis.; James Vernor Company, Detroit, Mich.; John Wyeth & Bro., Inc., Philadelphia, Pa., and Zemmer Company, Pittsburgh, Pa.

Public Health Luncheon; Other Group Meetings

Approximately 70 public health officials attended the round-table luncheon sponsored by the Section on Public Health and Preventive Medicine, Wednesday noon, at the Hotel Secor. Dr. Carl A. Wilzbach, health commissioner of the City of Cincinnati, and chairman of the Sub-Committee on Public Health Education of the Ohio State Medical Association, spoke on "Advising the Public", and Dr. R. H. Markwith, State Director of Health, discussed "Activities and Programs of the State Department of Health". The program was arranged by the section officers: Dr. Wm. Edward Blair, Lebanon, chairman, and Dr. J. J. Sutter, Wooster, secretary.

Several groups of specialists held round-table conferences and luncheon sessions during the Ninety-Third Annual Meeting. They included: Ohio Society of Pathologists; Ohio Society of Anesthetics; Ohio Allergists; Section on Eye, Ear, Nose and Throat and the Section on Nervous and Mental Diseases. The Ohio Chapter of the American Physiotherapy Association was also in session at the Hotel Secor, May 3-4.

Hobby Show As Usual Was a Popular Spot

The hobby exhibit, arranged by Dr. Paul Hohly, Toledo, and his committee, attracted considerable attention. Physicians who displayed their hobbies included: Dr. H. D. Piercy, Cleveland, wood-work, including a lap table and lamp standards; Dr. Henry J. John, Cleveland, wood sculpture; Dr. Thomas L. Ramsey, Toledo, four oil paintings, a charcoal drawing and a six-inch refracting mirror; Dr. Leonard Nippe, Toledo, 10 photographs; Dr. F. A. Majewski, Toledo, three oil paintings; Dr. H. E. Woodbury, Akron, flys and other artificial baits for fishing; Dr. L. E. Leavenworth, Canton, one oil painting and a pastel painting; Dr. John M. Van Dyke, Canton, an oil painting; Dr. Thomas Hubbard, Ashtabula, two trays and 11 book-rests—all hand-carved; Dr. Albert Wild, Alliance, two model sail boats; Dr. Wm. Kelley Hale, Wilmington, oil painting; Dr. John L. Jones, Medina, three photographs; Dr. D. Dalton Deeds, Mansfield, five etchings; Dr. Dean Slager, Toledo, three oil paintings and one water color.

Entertainment For Women; Radio and Club Talks

The 209 women guests who attended the Ninety-Third Annual Meeting were royally entertained, due to the fine program arranged by Mrs. Carll S. Mundy and her committee. The program began with a luncheon Wednesday noon at the Commodore Perry Hotel, followed by a tour of Our Lady of the Holy Rosary Cathedral and an organ recital. Mrs. Barney J. Hein, Toledo, wife of the President of the State Association, and Mrs. Parke G. Smith, Cincinnati, wife of the President-Elect, were the honored guests at a dinner Wednesday evening at the Toledo Woman's Club. Thursday noon the ladies were entertained at a luncheon at the Toledo Museum of Art, followed by a tour of the museum.

Radio broadcasts during the Toledo meeting included Governor John W. Bricker's address at the Annual Banquet and six 15-minute talks by the following physicians: Dr. Parke G. Smith, Cincinnati, President-Elect, "Voluntary Plans of Medical Care for Our Citizens Whose Incomes Are Inadequate"; Dr. C. C. Sherburne, Columbus, Councilor for The Tenth District and member of the Committee on Scientific Work, "Your Heart and Your Arteries"; Dr. Carl A. Wilzbach, health commissioner of Cincinnati, and member of the Committee on Education, "The Health of the School Child"; Dr. Wm. P. Garver, Cleveland, secretary of the Section on Medicine, "Allergy is a Strange Disease"; Dr. Max M. Zinninger, Cincinnati, member of the Committee on Scientific Work, "How To Select Your Doctor"; Dr. L. Howard Schriver, Cincinnati, Councilor for the First District, "Adequate Food, Shelter, and Clothing as They Contribute to the Health of the People".

Dr. Jonathan Forman, Columbus, editor of *The Ohio State Medical Journal*, addressed the Toledo Kiwanis Club, Wednesday noon, on "Modern Social Trends in Medicine"; and Dr. George T. Harding, Columbus, spoke at a meeting of the Lions' Club, Thursday noon, on "Emotions and Health".

Governor Bricker is Principal Speaker at Annual Banquet

The Annual Banquet, Thursday night, at the Commodore Perry Hotel, arranged by The Toledo Academy of Medicine, was attended by approximately 300 physicians and their guests. Governor John W. Bricker was the principal speaker. Dr. Leo P. Dolan, Toledo, was the toastmaster. Among those seated at the speaker's table with the Governor were: Dr. Barney J. Hein, Toledo, retiring President; Dr. Parke G. Smith, Cincinnati, President; Dr. Wm. M. Skipp, Youngstown, President-Elect; Dr. Ben R. McClellan, Xenia, a former President; Dr. Carll S. Mundy, president of The Toledo Academy of Medicine, Dr. A. A. Brindley, chairman of the local committee, and members of The Council of the Ohio State Medical Association.

In the absence of Dr. John B. Alcorn, Columbus, Past-President of the Association, who was unable to attend the meeting because of the death of his father, Dr. Eli G. Alcorn, the Past-President's gavel was presented to Dr. Hein by Dr. McClellan, who complimented Dr. Hein on his energetic and constructive administration.

Dr. McCormick announced that Dr. Hein's Toledo colleagues had decided he was entitled to more than a replica of the Association's official gavel in recognition of his service to the Association, and that an appropriate gift would be presented to Dr. and Mrs. Hein at a later date. A few days after the Annual Meeting a fine silver tea set was given to Dr. and Mrs. Hein, with the following inscription on the tray: "In appreciation of the fine leadership of Dr. Barney J. Hein, President of the Ohio State Medical Association, 1938-1939, from his Toledo colleagues." The committee in charge of this presentation was headed up by Dr. Ben Gillette and Dr. Frank N. Nagel.

Making a plea for "a renewed patriotism and a devotion to the principles of free government" as the way to national recovery, Governor Bricker, in his address, pointed out that the international trend in government is to minimize the position of the individual and extend the function of government. Sooner or later, he continued, America will have to face ths issue and the result may mean the end of free government.

Commenting on the traditional relationship of the physician with his community, the Governor

stated that he would countenance nothing which would tend to minimize or lessen this relationship.

"In this time of uncertain conditions", he said, "the stabilizing factor of the medical man is needed in the nation, not only to heal the sick, but to keep people thinking sanely and in the proper channels."

He stated that in many places government is not only assuming the duties of business, but trying to solve the problems of individuals who could best act for themselves.

Pointing out that medicine is expanding greatly in scientific and technical activity, Governor Bricker said: "That development will continue best under individual supervision and not subject to governmental domination".

Dinner Given in Honor of Past-Presidents

The annual dinner given by the Ohio State Medical Association for Past-Presidents was attended Wednesday evening by the following: Dr. Ben R. McClellan, Xenia, 1906-07; Dr. J. H. J. Upham, Columbus, 1914-15; Dr. W. E. Lower, Cleveland, 1915-16; Dr. Charles Lukens, Toledo, 1920-21; Dr. Jos. S. Rardin, Portsmouth, 1923-24; Dr. C. D. Selby, Toledo, 1925-26; Dr. Leslie L. Bigelow, Columbus, 1927-28; Dr. Charles W. Stone, Cleveland, 1928-29; Dr. C. W. Waggoner, Toledo, 1930-31; Dr. D. C. Houser, Urbana, 1931-32; Dr. Herbert M. Platter, Columbus, 1932-33; Dr. John A. Caldwell, Cincinnati, 1934-35; Dr. Ralph R. Hendershott, Tiffin, 1935-36; Dr. Edwin M. Huston, Dayton, 1936-37; Dr. Barney J. Hein, Toledo, 1938-39; Dr. Parke G. Smith, Cincinnati, President-Elect, and Charles S. Nelson, Executive Secretary.

Women Favor Pre-Payment Plan

According to the Cincinnati Post, the 1,000 women members of the Greater Cincinnati Jury of Public Opinion stand four-to-one in favor of joining an association on a fixed annual basis to provide hospitalization and medical care for their families. The women were practically united in demanding the right to choose their own physicians, the survey showed. The "jury" is composed of Greater Cincinnati women from all walks of lifes whose concensus of opinion is regarded as an excellent means of determining what citizens think.

On the first question, 76.52 per cent of the voters answered favorably and 23.48 per cent unfavorably. Answering the question regarding choice of physician, 97.94 per cent of the women insisted they would want to select their own physicians, while the remaining 2.06 per cent would waive that right.

Dr. J. J. Marek Wins Possession of Championship Golf Trophy

UNDER a cloudy sky and in the face of a chilly wind approximately 115 physicians played golf in the Nineteenth Annual Tournament of the Ohio State Medical Golfers' Association on May 2 at the Sylvania Country Club, Toledo.

The association had eight trophies at stake this year. The Championship Trophy was won by Dr. J. J. Marek, Cleveland. Having won the championship in 1934, in 1937, and again in 1939, Dr. Marek retained permanent possession of this coveted trophy. This is the first time since the beginning of the association that the Championship Trophy has been taken out of circulation. Dr. Marek corralled a 41 for the first nine, a 38 for the second nine, and a 39 for the third nine, or a total of 118 strokes for 27 holes of play.

The runner-up was Dr. T. F. Heatley, Toledo, with 119 strokes for the 27 holes. Third place was taken by Dr. Galen Bowman, also of Toledo, with a 27-hole score of 120 strokes.

The John P. DeWitt Memorial Trophy, to remain permanently in competition as a memorial to Dr. DeWitt, was won by Dr. T. F. Heatley.

The Ohio State Medical Journal Junior's Trophy went to Dr. D. R. Printz of Lima.

The President's Trophy presented by Dr. John Wright was awarded as a blind bogey prize and was drawn by Dr. John Schrider of Toledo.

The S. J. Coulter Trophy—low five-man score from any one city—was won by Toledo with a total of 415 strokes for the first 18 holes.

Twin honors were awarded for low gross score for the first 18 holes (limited to those between the ages of 46 and 55). Dr. W. A. Welsh of Youngstown and Dr. Galen Bowman of Toledo received duplicate awards.

The Grand-Dad's Trophy presented by the Mead Johnson Company was won by Dr. E. C. Yingling of Lima.

The banquet in the evening was followed by distribution of prizes and election of officers for the coming year. Those elected were: President, Dr. F. T. Gallagher, Cleveland; First Vice-President, Dr. E. C. Yingling, Lima; Second Vice-President, Dr. D. C. Brennan, Akron; Third Vice-President, Dr. H. H. Dorr, Columbus; Fourth Vice-President, Dr. Valloyd Adair, Lorain; Fifth Vice-President, Dr. J. J. Marek, Cleveland; and Secretary-Treasurer, Mr. George W. Cooley, Toledo.

Dr. E. L. Harmon, director of out-patient service, University Hospitals, Cleveland, has been appointed superintendent of Grasslands Hospital, Valhalla, New York.

What Every Citizen of Ohio Should Know

Do You Want Copies of This for Your Office Reception Room? » » »

Waste, Inefficiency and Dictatorship in Public Health!

Under Wagner Bill, Now Before U. S. Senate, Your Money Would Be Spent by Federal Bureaus For Over-Expansion and Would Abolish Local Control of Health

MR. or Mrs. Citizen—you should voice your objections to Senate Bill 1620, known as the Wagner National Health Bill, to Senators Donahey and Taft and Ohio's Representatives in Congress. Why? The answer is obvious.

You should object to any proposal which (1) provides for the expenditure of the taxpayers' money (your money) for unnecessary things; (2) deprives individuals and local communities of their rights by placing dictatorial power in the hands of appointive Federal officials; (3) pretends to provide efficient services when such would be impossible under the administrative system established; (4) places control over the intimate, confidential relationship between you and your doctor in the hands of politicians.

* * * *

HERE are a number of specific serious objections to this proposal:

FIRST—It would authorize the expenditure of approximately $100,000,000 of the taxpayers' money in 1940; at least twice that amount in 1941; probably three times that amount in 1942; and, thereafter, an unlimited amount—perhaps as much as a billion dollars a year, as estimated by proponents of the proposal. You would have to pay additional taxes to create these funds. Then, too, you must remember that only a fraction of the taxes so collected by the Federal Government would be returned to Ohio. Much would be used up in the collection and administration of these funds and, what is more to the point, much of your tax money would be allocated to distant states.

SECOND—It would authorize the expenditure of Federal money (your money), supplemented by state funds (your money), for the building of hospitals and medical centers and for facilities and services without any particular regard as to the need for such buildings, facilities and services. In fact, the need for an expansive program like that proposed by Senate Bill 1620 has not been shown —cannot be shown.

THIRD—It would make several Federal bureaus virtually dictators over the health and medical activities of Ohio and the rest of the nation. Such centralization of power in Washington would be unwarranted and dangerous. There is too much centralization now. Your local health department and the physicians of your community would be servants of Washington bureaus, managed by political appointees. The character of public health services and the care of the sick, available for you, would be determined in Washington. The quality of both these services to you certainly would be made much poorer than they are today.

FOURTH—It would attempt to coerce Ohio into unwarranted and needless expansion of public health and medical services in this state by holding out Federal funds as bait. Senate Bill 1620 would provide cash incentives to states who are willing to yield to Federal dictation and penalties to those who refuse to do so.

FIFTH—It would, indirectly, encourage the establishing of state systems of compulsory health insurance with their apparent, and inherent, evils of poor medical care, inefficient administration, political manipulation, and waste of money.

These are not all—just some—of the serious objections which can be raised to U. S. Senate Bill 1620.

THE physicians of Ohio want all the people to have the advantages and protection of efficient public health services and good medical care. They constantly are fighting for adequate public health safeguards, expansion of public health services (when and where needed), and a better distribution of good medical services so that all citizens (rich or poor) may benefit. These ends are being accomplished and can be accomplished without the enactment of U. S. Senate Bill 1620.

Ohio has the brains and resources necessary to meet the health and medical problems of its citizenry. It does not have to mortgage itself to the Federal Government to maintain adequate health protection and good medical care for all its people.

The verdict, Mr. or Mrs. Citizen, rests on your opinion and action.

Copies of the above article will be mailed to those who requested copies of the article, "Do You Want Your Own Doctor — Or the 'State' Doctor", published several months ago. Members who would like copies of this second article and **who did not order copies of the first article,** will be supplied with them if they will **file a request with the State Headquarters Office, Columbus.**

Do You Know - - -

Members of Phi Rho Sigma held open-house in a suite of rooms at the Commodore Perry Hotel during the 93rd Annual Meeting of the Ohio State Medical Association at Toledo, May 3-4. Arrangements were in charge of Dr. Dudley M. Stewart.

* * *

Dr. Clyde L. Cummer and Dr. James R. Driver, assistant clinical professors of dermatology and syphilology, Western Reserve University School of Medicine, Cleveland, were essaysists at the recent meeting of the American Dermatological Association in Montreal, Canada.

* * *

Dr. Frederick C. Smith, Marion, congressman from the Eighth Ohio District, spoke in opposition to the Wagner Health Bill, S. 1620, in a radio debate with the author of the bill, Senator Robert F. Wagner, New York, over the stations of the Mutual Broadcasting System, Sunday evening, May 7.

* * *

An article on "Appendicitis in Adults", reviewing 2,000 consecutive cases at Woman's Hospital, Cleveland, with comments on the rising mortality of the acute suppurative type, by Dr. Ralph M. Watkins and Dr. F. R. Kelly, Cleveland, appears in the May 6 issue of *The Journal of the American Medical Association*, pages 1785-1788

* * *

The compulsory health insurance bill introduced in the California state legislature provides that every worker must select a physician and surgeon to supervise his health at all times. If he fails to make such selection, one is arbitrarily assigned to him.

* * *

Dr. Ira A. McCown, native of Oxford, and graduate of Ohio State University College of Medicine in 1925, now practicing in Harlem, was first in a New York state-wide examination to fill the post of gynecological adviser to the New York State Workmen's Compensation Board, and was subsequently named to that position.

* * *

Dr. Robert F. Corwin, Dayton, was elected president of the Ohio State Society of Anesthetists at its recent meeting in Toledo.

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Dr. Lawrence A. Pomeroy, Cleveland, became president of the American Radium Society at its recent meeting in St. Louis.

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Governor Bricker has appointed Dr. W. Maurice Hoyt, Hillsboro, homeopathic physcian, a member of the State Medical Board, for a term ending March 18, 1946, succeeding Dr. Floyd S. Meck, Cleveland.

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Speakers at the annual meeting of the Ohio Federation of Public Health Officials at Columbus, May 19, included Dr. Carl A. Wilzbach, Cincinnati; Dr. Kurt Carl Becker, Troy, and Dr. Nathan Sinai, Ann Arbor, Mich.

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According to newspaper reports, "furtherance of socialized medicine and adoption by the government of chiropractic treatment for veterans" was advocated at the recent meeting of the Ohio State Chiropractic Society.

* * *

Dr. Walter W. Brand, Toledo, is state chairman for the Membership Committee of the American Congress of Obstetrics and Gynecology to be held at Cleveland, September 11-15, and Dr. Roy E. Krigbaum, Columbus, is chairman of the State Committee on Promotion and Arrangements.

* * *

Judge Cecil J. Randall of the Franklin County Common Pleas Court recently suspended a fine of $200 and costs and a prison sentence of six months imposed on a man who pleaded guilty to a charge of assault and battery of his wife, on the condition that the man pay the hospital and medical bills in connection with his wife's injuries, within 30 days.

* * *

The American Association of Clinical Pathologists, at its meeting in St. Louis May 13, conferred the Burdick Award, a gold medal given annually for outstanding contribution to medical science, upon Dr. Harry Goldblatt, professor of experimental pathology, Western Reserve University College of Medicine.

* * *

Dr. C. E. Schilling, Columbus, vice-president and medical director of the Ohio State Life Insurance Company, has been presented with a 50-year medal for his half century membership in the Masonic Lodge at Louisville, Ohio.

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Dr. Gatewood, Chicago, well-known alumnus of Ohio State University College of Medicine, died May 23.

* * *

Seven employees of the Bureau of Dental Hygiene, State Department of Health, were dismissed April 30, the completion date of a two-year dental hygiene program financed by Federal funds.

Wagner Health Bill Condemned by House of Delegates of A.M.A. at St. Louis Session; Ohio Takes Leading Part

OHIO physicians numbering approximately 365 attended the annual session of the American Medical Association at St. Louis, May 15-19, and official delegates from Ohio took a prominent part in the meeting which was attended by between 8,000 and 9,000 physicians from all parts of the nation.

All of Ohio's seven delegates, Dr. Ben R. McClellan, Xenia, Dr. C. W. Stone, Cleveland, Dr. E. R. Brush, Zanesville, Dr. B. J. Hein, Toledo, Dr. C. E. Kiely, Cincinnati, Dr. Carl R. Steinke, Akron, and Dr. Claude B. Norris, Youngstown, attended the sessions of the House of Delegates. Dr. Clyde L. Cummer, Cleveland, served as a delegate, representing the Section on Dermatology and Syphilology.

Dr. McClellan served as a member of the Reference Committee on Miscellaneous Business; Dr. Stone as a member of the Reference Committee on Medical Education, and Dr. Cummer as a member of the Reference Committee on Executive Session.

NEW OFFICERS ELECTED

At the opening session of the House of Delegates, the Distinguished Service Award was presented to Dr. James B. Herrick, Chicago.

At its closing session, the House of Delegates elected the following officers and members of councils: President-elect, Dr. Nathan B. Van Etten, New York, succeeding Dr. Rock Sleyster, Wauwatosa, Wis., who was elevated to the office of president; vice president, Dr. Alphonse McMahon, St. Louis; secretary, Dr. Olin West, Chicago; treasurer, Dr. Herman L. Kretschmer, Chicago; speaker, Dr. H. H. Shoulders, Nashville, Tenn.; vice speaker, Dr. Roy W. Fouts, Omaha; trustees, Dr. Roger I. Lee, Boston, and Dr. Elmer L. Henderson, Louisville, Ky., succeeding Dr. Allen H. Bunce, Atlanta; member of Judicial Council, Dr. E. R. Cunniffe, New York, and Dr. Holman Taylor, Fort Worth, Texas, succeeding Dr. John W. Burns, Cuero, Texas; member of Council on Medical Education and Hospitals, Dr. Ray Lyman Wilbur, Stanford University, Calif.; members of Council on Scientific Assembly, Dr. J. Gurney Taylor, Milwaukee, and Dr. Samuel P. Mengel, Wilkes-Barre, Pa., succeeding Dr. J. C. Flippin, Charlottesville, Va.

Atlantic City was selected as the meeting place in 1942. The 1940 meeting will be in New York City and the 1941 meeting in Cleveland.

WAGNER BILL CRITICIZED

Obviously, the most important question considered and acted upon by the House of Delegates was the formation of an official policy regarding the Wagner National Health Bill, now pending before the United States Senate. By a unanimous vote the House of Delegates adopted a report of a special reference committee in which many sections of the Wagner Bill were condemned. The policy adopted is set forth in the following summary of the complete report of the reference committee and appended to the report when presented:

"1. The Wagner Health Bill does not recognize either the spirit or the text of the resolutions adopted by the House of Delegates of the American Medical Association in September, 1938.

"2. The House of Delegates cannot approve the methods by which the objectives of the National Health Program are to be obtained.

3. The Wagner Health Bill does not safeguard in any way the continued existence of the private practitioners who have always brought to the people the benefits of scientific research and treatment.

"4. The Wagner Health Bill does not provide for the use of the thousands of vacant beds now available in hundreds of church and community general hospitals.

"5. This Bill proposes to make Federal aid for medical care the rule rather than the exception.

FAILS TO RECOGNIZE BASIC NEEDS

"6. The Wagner Health Bill does not recognize the need for suitable food, sanitary housing and the improvement of other environmental conditions necessary to the continuous prevention of disease.

"7. The Wagner Health Bill insidiously promotes the development of a complete system of tax-supported governmental medical care.

"8. While the Wagner Health Bill provides compensation for loss of wages during illness it also proposes to provide complete medical service in addition to such compensation.

"9. The Wagner Health Bill provides for supreme Federal control: Federal agents are given authority to disapprove plans proposed by the individual states.

"10. The Wagner Health Bill prescribes no method for determining the nature and extent of the needs for preventive and other medical services for which it proposes allotments of funds.

NO ASSURANCE OF QUALITY

"11. The Wagner Health Bill is inconsistent with the fundamental principles of medical care established by scientific medical experience and is therefore contrary to the best interests of the American people.

"12. The fortunate health conditions which prevail in the United States cannot be dissassociated from the prevailing standards and methods of medical practice.

"13. No other profession and no other group have done more for the improvement of public health, the prevention of disease and the care of the sick than have the medical profession and the American Medical Association.

"14. The American Medical Association would fail in its public trust if it neglected to express itself unmistakably and emphatically regarding any threat to the national health and well being. It must, therefore, speaking with professional competence, oppose the Wagner Health Bill.

ALTERNATIVE SUGGESTION

"15. The House of Delegates would urge the development of a mechanism for meeting the needs for expansion of preventive medical services, extension of medical care for the indigent and the medically indigent, with local determination of needs and local control of administration, within the philosophy of the American form of government and without damage to the quality of medical service.

"16. The fundamental question is how and when a state should be given financial aid by the Federal Government out of the resources of the states as a whole, pooled in the Federal Treasury.

"17. The bizarre thinking which evolved the system of Federal subsidies—sometimes called 'grants-in-aids'—is used to induce states to carry on activities suggested frequently in the first instance by officers and employees of the Federal Government.

"18. The use of Federal subsidies to accomplish such Federally determined activities has invariably involved Federal control.

"19. Any state in actual need for the prevention of disease, the promotion of health and the care of the sick should be able to obtain such aid in a medical emergency without stimulating every other state to seek and to accept similar aid, and thus to have imposed on it the burden of Federal control.

SHOULD BE ON BASIS OF NEED

"20. The mechanism by which this end is to be accomplished, whether through a Federal agency to which any state in need of Federal financial assistance can apply, or through a new agency created for this purpose or through responsible officers of existing Federal agencies, must be developed by the Executive and the Congress, who are charged with these duties.

"21. Such a method would afford to every state an agency to which it might apply for Federal assistance without involving every other state in the Union or the entire government in the transaction.

"22. Such a method would not disurb permanently the American concept of democratic government."

OHIOANS WHO REGISTERED

Approximately 50 Ohio physicians took part in the scientific program or entered scientific exhibits.

Ohio physicians registered at the session were:

Cincinnati—Nathan R. Abrams, Charles D. Aring, Charles W. Beaman, Julien E. Benjamin, Oscar Berghausen, Samuel L. Betagole, M. A. Blankenhorn, Joseph Bolin, E. B. Brandes, Albert L. Brown, Samuel Brown, A. Gerson Carmel, William R. Chambers, John F. Cronin, Joseph G. Crotty, Edward C. Elsey, Howard D. Fabing, Carroll J. Fairo, John A. Fisher, Joseph A. Freiberg, Wm. M. German, Samuel Goldblatt, Douglas Goldman, Leon Goldman, Anthony B. Hendricks, Louis J. Hendricks, Louis G. Herrmann, Mortimer Herzberg, D. W. Heusinkveld, Benjamin Hoyer, D. E. Jackson, C. E. Kiely, Karl V. Kitzmiller, Henry F. Kulle, Rudolph F. Kurz, Alfred Lustberg, John W. Leichliter, David Lerner, Joseph Lindner, Frank H. Mayfield, I. Arthur Mirsky, Wm. Mithoefer, A. W. Nelson, Samuel Okrent, McKinnie L. Phelps, Andrew C. Renz, Daniel C. Rivers, Geo. E. Rockwell, Robert C. Rothenberg, Bernard A. Schwartz, Raymond G. Senour, Dora F. Sonnenday, Tom Spies, Henry A. Springer, Francis M. Stephens, Emil R. Swepston, Elmore B. Tauber, Richard S. Tyler, Derrick Vail, Ward H. Ventress, Hiram B. Weiss, Ashton L. Welsh, Samuel Zielonka, Mendel Zeligs, Albert R. Zoss.

Cleveland—John B. Anderson, Edmund E. Beard, George W. Binkley, A. G. Boldizar, A. C. J. Brickel, Thomas F. Charvat, Milton B. Cohen, Wm. F. Creadon, Clyde L. Cummer, Geo. H. Curtis, N. S. D'Alessandro, John H. Davis, J. Frank Dinnen, R. S. Dinsmore, C. T. J. Dodge, Frank J. Doran, James R. Driver, Ralph W. Elliott, F. Graham Fallon, Warren C. Fargo, Geo. Edw. Follansbee, W. J. Fornes, Curtis F. Garvin, Marion N. Gibbons, Frank S. Gibson, C. Lee Graber, Russell L. Haden, John E. Hannibal, Maxwell Harbin, Harry Hauser, Grant M. Hawk, Chas. C. Higgins, Charles A. Holan, E. J. Humel, C. R. Jablonski, Louis J. Karnosh, A. J. Kazlauckas, F. J. Kern, E. Klaus, Benj. S. Kline, Paul H. Krebs, Henry A. Lichtig, Wm. E. Lower, James J. Marek, E. A. Marshall, E. Perry McCullagh, W. E. Mishler, John B. Morgan, William A. Nosik, Conrad Ottelin, Wendell Parker, V. F. Pekarek, Anthony J. Perko, Edward Peterka, L. A. Pomeroy, Albert H. Reed, Albert D. Ruedemann, Peter E. Russo, George L. Sackett, A. G. Schlink, Arthur H. Schumacher, Edward D. Schwartz, Haskell H. Schweid, Roy W. Scott, James F. Slowey, F. A. Spittler, Robert M. Stecher, Clement E. Steyer, Richard E. Stifel, Charles W. Stone, Abraham Strauss, J. J. Thomas, J. Warrick Thomas, John T. Vitkus, Justin M. Waugh, William H. Weir, R. J. Whitacre, Zolton T. Wirtschatfer, Edward E. Woldman, James S. Wolfstein, Sidney E. Wolpaw, Samuel Yamshon, Anna M. Young, Nicholas L. Zinner, Theodore T. Zuck.

Columbus—Willard B. Andrus, R. W. Bonnell, H. M. Brundage, James M. Foley, Walter H. Hamilton, Wm. B. Harris, Frank A. Hartman, Arthur G. Helmick, John E. Hoberg, F. C. Hugenberger, R. W. Kissane, Louis Mark, W. Eugene Masters, Russel G. Means, William F. Mitchell, Charles W. Pavey, R. A. Ramsey, Oscar F. Rosenow, C. C. Sherburne, J. H. J. Upham, Emmerich von Haam,

Frank Warner, Judson D. Wilson, Bruce K. Wiseman.

Dayton—Elmer R. Arn, Sterling H. Ashmun, Robert C. Austin, Ray H. Bechtell, David L. Bernie, Warren C. Breidenbach, Homer D. Cassel, D. B. Conklin, Lloyd H. Cox, Arthur M. Culler, H. V. Dutrow, Robert K. Finley, Kenneth Fowler, H. C. Hanning, William H. Hanning, N. C. Hochwalt, Jerold K. Hoerner, J. A. Judy, Louis B. Katz, Elmer C. Loomis, J. Grant Marthens, Albert W. McCalley, A. P. McDonald, Richard C. Miller, W. Dale Miller, J. W. Millette, Leonard J. Newell, Benedict Olch, Ernest S. Olson, Richard C. Schneble, A. H. Schwichtenberg, Lloyd E. Seyler, Thomas P. Sharkey, Walter M. Simpson, Henry Snow, B. F. Suffron, Raymond E. Tyvand, Paul L. Yordy, Edward A. Zimmermann.

Toledo—Abel A. Applebaum, Arthur A. Brindley, Lewis R. Carr, Burt G. Chollett, Lawrence I. Clark, Frederick W. Clement, Frank C. Clifford, I. R. Cohn, Mr. George W. Cooley, Samuel J. Coulter, Martin W. Diethelm, Rudolph A. Diethelm, Leo P. Dolan, Joseph B. Edelstein, Karl D. Figley, David C. Frick, John Gardiner, Stanley D. Giffen, E. B. Gillette, Matthew Ginsburg, Barney J. Hein, Joy D. Huss, Bernard A. Karwowski, Philip Katz, J. Lester Kobacker, Louis A. Levison, Charles Lukens, K. C. McCarthy, Patrick J. McCarthy, Edward J. McCormick, Nelson Morris, Jos. A. Muenzer, John T. Murphy, F. N. Nagel, Howard J. Parkhurst, C. J. A. Paule, Joseph A. Radecki, Samuel R. Salzman, Maurice A. Schnitker, Harold P. Shapiro, A. H. Steinberg, Bernhard Steinberg, Reynold A. Tank, Thad W. Taylor, Morris Weinblatt, Theodore Zbinden.

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Results in Treating Cancer With New Machine Termed "Encouraging"

Patients with advanced cancer who have been treated at the University of California with rays from the cyclotron, a new atom-smashing machine, are furnishing much encouragement for scientists in this field, according to officials of the National Cancer Institute of the United States Public Health Service.

"Tests have not gone far enough to establish permanent cures", Dr. Ludvig Hektoen, executive director of the National Advisory Health Council, pointed out, "but the cancerous growths of these patients are receding, and this bit of encouraging evidence of the value of the radio active particles produced by the cyclotron is leading to further studies and experimentation".

The Council has recommended that $23,000 be given to the University of California to help finance work to be undertaken in connection with a new medical cyclotron.

Sight-Saving Courses Arranged

The National Society for the Prevention of Blindness has announced that it is cooperating with a number of colleges and universities in offering courses for the preparation of teachers and supervisors of sight-saving classes at their 1939 summer sessions. Included is Western Reserve University, Cleveland, which will present the course, June 19 to July 28, under the direction of Miss Olive S. Peck, supervisor, Braille and sight-saving classes, Board of Education, Cleveland, Ohio.

Cleveland—The Forty-Fourth Hanna Lecture was delivered by August Krogh, Ph.D., L.L.D., professor and director of the Zoophysiological Laboratory, University of Copenhagen, Denmark, Nobel Laureate, 1920, at the Institute of Pathology of Western Reserve University, May 5. His subject was "The Regulation of the Circulation as Observed in Changes of Posture of Man". Dr. Howard T. Karsner presided.

Wellington—"The Physician and the Preacher" was the subject of an address made by Dr. William A. Klann at a recent meeting of the Congregational ministers of this area.

The Follow-Up of Delinquent Accounts

STANLEY R. MAUCK

WHAT should be done about an account which is not paid in a satisfactory manner?

This is a very real problem for physicians but unfortunately most of them make little or no effort to solve the problem. Because of the laxity among professional men in meeting this situation, physicians' accounts register a much higher percentage of delinquency than is justified.

It is conceded that physicians' bills for obvious reasons, will not reflect the same high percentage of collectability as applies in the field of commercial transactions. Medical ethics should never be sacrificed in favor of business efficiency nor should the noble traditions of the profession give way to streamlined commercialism in medical practice.

When it is realized, however, that one out of every five patients does not pay his bills for medical care, it is not unnatural that physicians should be interested in ways and means to defend themselves against the unfair advantage which the public takes of the professional man.

Without detracting from the idealism of the profession, it is still within the power of every physician to control his delinquent account problem, within certain limits, by improved business relations between himself and his patients.

DEFINITION OF TERM

Before discussing specific suggestions for dealing with a delinquent account, we should define the term. Among professional men there is no standard pattern for a delinquent account. When commodities or services are purchased as commercial transactions, the conditions of the sale are usually specific, and a delinquency results when the terms of the agreement are not kept. Presumably doctor bills, too, should be paid within a reasonable time from date of service. Unfortunately, however, there is no uniformity among physicians in handling their accounts.

In one office an account may be considered delinquent after a period of six months whereas in another office the first statement may not have been sent at the end of such a period. The public has a confused sense of its responsibility in the face of these circumstances, and the patient can hardly be blamed for the frequent delay in paying his account. While the physician may be thinking in terms of the date of service, the patient quite properly may consider the obligation as dating from the time when he received his first request for payment. It is the physician who is delinquent in his business procedure, rather than the patient. In the face of the varied and uncertain procedure followed in most offices, it is very difficult, therefore, to define a delinquent account. Each physician is likely to insist upon his own interpretation of an unsatisfactory patient. **It should be evident, however, that a serious delinquency cannot be charged against the patient until he has been made conscious of what is expected of him in the way of payment. The proper way to do this is by following a systematic program of regular monthly statements.**

FURTHER ACTION INDICATED

In the office that follows a policy of sending statements regularly at the beginning of each month, there is a more definite basis for a correct and uniform interpretation of what constitutes a delinquent professional account. If a patient has received two or three plain statements at regular intervals, without responding in any way, the physician surely is then justified in taking steps which will be more likely to invoke a reply. After three statement reminders have been sent, the physician has a right to assume that the patient should pay something on his account, or at least that he should explain the circumstances back of the delay. **If no response of any kind has been received, a delinquency certainly exists and something should be done about it.** Steps should be taken that will determine, as soon as possible, what lies behind the delinquency, in order that it may be dealt with effectively.

Plain statements should give way to more direct efforts to "smoke out" the real conditions underlying the delinquency, which can usually be classified in one of the following groupings:

First, carelessness or the characteristic apathy toward doctor bills, which usually may be overcome by tactful reference to the condition of the account.

Second, the patient may be dissatisfied either with the services rendered or the amount of the charges, in which case it is essential that the physician know the facts as soon as possible since further delay is likely to increase the misunderstanding.

Third, payment may be difficult or impossible for reasons that are thoroughly justified, but a full understanding of these circumstances is necessary in order that deserving consideration may be extended and unwarranted collection pressure avoided.

Fourth, the patient may be totally irresponsible or a recognized "dead beat", and proper

knowledge of such facts will suggest the necessity for prompt and appropriate action to protect the physician's interests.

OFTEN PHYSICIAN AT FAULT

The physician is likely to assume that he knows all about his patients and the reasons why payment has not been made. Too frequently he is wrong, as would be easily revealed if only he would be more systematic and businesslike in the financial relations with his patients. The careless leniency of the average physician often invites a justifiable disregard for prompt payment. The result is that many self-respecting citizens who are self-supporting in every other phase of their economic existence "let their doctor bills ride" and use their money in other directions.

Not infrequently does the considerate physician see an erstwhile hard pressed patient display unexpected evidence of material prosperity, maybe a new auto, which is hard to reconcile with his own unpaid bill. Not many physicians will deny to his patients, in the third group above, all reasonable consideration that may be due. But he should not take conditions for granted and "assume" too much about the patient's ability to pay. A careful follow-up would likely indicate that more of his unpaid accounts properly belong in groups one, two or four rather than in group three.

The correct procedure is to establish a system which will "spot" the unwarranted delinquencies early, according to the standard suggested above, and then apply a prompt and intelligent remedy for their elimination. **The silent treatment of an unpaid and unexplained account only encourages the abuse of the medical credit privilege and subtracts from the value of the account with the passing of the months—and years.**

REGULAR STATEMENTS IMPORTANT

As stated in the second article of this series in the February *Journal*, entitled "Regular Statements Will Improve Collections", "The most important single factor contributing to the poor collection result of physicians is their own poor system of handling their statement procedure". Regular monthly statements, therefore, are the first essential in dealing with the delinquent account problem. Such a procedure will, in itself, eliminate many of the slow accounts that ordinarily would fall into the first classification and again it will serve to establish definitely what accounts need further attention. While regular statements alone are not adequate, nevertheless they constitute the fundamental requirement in any systematic approach to the problem. If physicians did nothing more than send bills promptly and regularly on the first of each month to all patients from whom payment is expected, their collection problem would be greatly reduced.

Unless regular statements do precede other sterner methods, an injustice to the patient is likely to result. A hit-and-miss practice of billing fails to create the impression that prompt payment is seriously expected. Therefore, a sharp or pointed demand for payment, so unexpected and out of tune with the physician's preceding attitude, may cause offense and lose goodwill. **Collection pressure should be gradual and built up to a climax so that each succeeding effort is logically related to what has been done before.**

It is not unusual for the physician to act impulsively in "doing something" about his slow accounts, maybe actuated by a pressing need for money or a periodic resolution to be more businesslike and orderly in handling his collections. As he thumbs through his ledger he pulls certain accounts that ought to pay, so he thinks. Irritated by what he regards as unfair treatment on the part of these delinquent debtors, he pens across the face of a statement some pointed remark like, "This must be paid at once," "This account is long past due," or "Unless this is paid within 30 days it will be turned over to a collector, etc.".

Such comments may have a proper place at certain stages in a collection follow-up but too frequently they represent a spasmodic effort that has no relationship to any preceding reminder. Accounts may even be turned over for collection solely on the basis of age, with little or no build-up for such drastic action. Every collection agency is familiar with the repeated complaint, too frequently justified, that nothing had been heard from the doctor to indicate he wanted his

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THIS is the fifth of a series of articles on "Office Problems of the Physician" which will be presented in Volume 35 of The Ohio State Medical Journal.

Mr. Mauck, author of the series, serves as executive secretary of the Columbus Academy of Medicine and as director of the Columbus Bureau of Medical Economics. Previously he operated a professional management service for physicians.

Mr. Mauck invites questions or comments pertaining to the subjects discussed in these articles, and suggestions as to possible topics for future articles. Communications should be addressed to him at the Columbus Academy of Medicine, 79 E. State St., Columbus.

money or that stern measures were to be taken to effect collection.

Several plain statements immediately following service have been recommended for the purpose of accomplishing certain definite results. But they by no means solve the deliquent account problem. From that point forward the follow-up should be systematic and consistent, with each succeeding step constructed as a part of a sustained program for increased pressure for payment of the account. The climax comes in referring the account to a collection agency or an attorney. But if steady pressure is gradually applied, somewhere along the line a response usually results which avoids final disposition through a collector. Payment in full, part payment, definite arrangements for payment, or an explanation of the patient's situation will likely follow collection efforts properly applied. By these responses the physician learns in which classification of delinquency his patient belongs, and the follow-up from that time forward can be handled much more intelligently and in keeping with the known circumstances. Even though immediate payment is not possible, the account is not likely to be lost so long as the debtor continues to contact the physician about the delinquency. The proper follow-up of accounts should have this as its objective, if prompt settlement is out of the question. **It is the silent debtor who becomes a "bad debt" hazard.** But many patients will not respond to the casual or haphazard handling of their accounts and for that reason a careful follow-up is required. Only by such a program can the physician avoid an abnormal shrinkage in his accounts receivable.

After plain statement procedure for a period of several months, and definite determination of a condition of delinquency, what steps are then in order to follow the account further? Next month specific suggestions will be offered on this point.

Open New Offices

Physicians who recently opened new offices in Ohio include the following: Dr. F. A. McCammon, Van Wert; Dr. A. Morton Karlan, Springfield; Dr. Herman E. Karrer, Plain City; Dr. Harvey D. Wright, West Jefferson; Dr. W. E. Devol, Columbus; Dr. F. B. Kantzer, Quaker City; Dr. John Corlette, Bethesda; Dr. H. J. Wilson, Columbus; and Dr. Heinz Oppenheim, Ashtabula.

Xenia—Dr. E. R. Arn, Dayton, past grand master of the Grand Lodge of Ohio, was the principal speaker at the recent annual father-and-son banquet of the local Masonic Lodge. His topic was "Boys Will Be Men".

Gifts to Cincinnati College of Medicine Are Announced

An anonymous gift of $27,500 to the Department of Psychiatry of The University of Cincinnati College of Medicine was included in donations amounting to more than $50,000 recently announced by President Raymond Walters. Purposes of the gifts ranged from the furtherance of scientific research to the aid of worthy students.

In addition to the gift for psychiatry, donations to the College of Medicine included the following:

Five thousand dollars from the Taylor Instrument Companies for research in peripheral vascular diseases; $3,450.50 from the National Advisory Cancer Council to the department of surgery for research in cancer under Dr. Mont R. Reid's direction; $2,500 from Mead Johnson and Company as a grant-in-aid to Dr. Tom D. Spies, associate professor of medicine, for investigations on the clinical usefulness of nicotinic acid in the treatment of pellagra; $2,500 from anonymous donors as grants-in-aid; $1,800 from Parke Davis and Company to the College of Medicine; $1,100 from Mrs. David Hyman to aid in reconstructing department of psychiatry quarters in the basement of a General Hospital pavilion.

One thousand dollars from the Dow Chemical Company to the Institute of Scientific Research for the Dow chemical fellowship; $1,000 from an anonymous donor to the heart station fund in the department of internal medicine; $850 from Mead Johnson and Company for investigation of the value of pectin in therapy of diarrhea; $650 from the Union Central Life Insurance Company, through the Community Chest, for studies on heat and other studies; $600 from the Union Central Life Insurance Company for research in the department of internal medicine; $600 from Miss Mary Hanna for studies in allergy; $500 from the S. M. A. Corporation to aid in Dr. Spies's work on pellagra and nicotinic acid; $500 from Dr. Elliott Hendricks, Fort Lauderdale, Fla., for special research in cancer; $350 from Dr. Mont R. Reid, professor of surgery, to purchase a calorimeter; $300 from the Cincinnati College Club for three $100 scholarships.

Two hundred and fifty dollars from the Ella Sachs Plotz Foundation for the department of internal medicine; $200 from Dr. Howard D. McIntyre, assistant professor of medicine, to defray in part the expenses of studies in multiple sclerosis; $25 from Mrs. Walter C. White to aid in Dr. Spies's work in nicotinic acid.

Commonwealth Fellowship

The Commonwealth Fund has awarded a traveling fellowship to Dr. Harold D. Green, assistant professor of physiology, Western Reserve University School of Medicine, for advanced study in physics in the Division of Biological Engineering, Department of Biology and Public Health, Massachusetts Institute of Technology, where he has been appointed visiting professor for the next academic year.

A MESSAGE TO HOME CANNERS FROM THE CANNING INDUSTRY

● Every year, in various regions of the country, a considerable amount of the produce from thousands of small orchards and gardens is preserved for future use by canning in the home. Despite much that has been written on the subject (1), outbreaks of botulism from improperly heat processed home-canned foods continue to be reported.

To eliminate the possibility of botulism from their products—specifically those foods of the "non-acid" type—home canners should take a page from the experience of commercial canners. Through considerable research, the American canning industry has scientifically established the necessary processing requirements for products of this character. For non-acid foods, modern canners employ only recommended process time and temperature schedules(2) known to be adequate to destroy the heat-resistant spores of clostridium botulinum whose growth produces the toxin which causes the deadly type of food intoxication known as botulism.

Brief comment on the heat-processing requirements of common foods might be in order. In general, foods or food products may be classed into two groups according to their acidity, i.e., the "acid" and "non-acid" classes with pH values below and above 4.5, respectively. The acid foods include tomatoes and the common fruits. These foods are not favorable to the growth of clostridium botulinum and consequently they may be safely processed at 212°F., or the temperature of boiling water.

The non-acid products, however, present a special processing problem. Such products —meat, fish, fowl, milk and most common vegetables—can be adequately processed only at temperatures above 212°F. As the records indicate (1) botulism in home canned foods may result from processing non-acid foods in boiling water. Safe canning of these foods in the home, therefore, requires the use of properly operated "pressure cookers"—identical in principle with the "retorts" used by commercial canners —which will permit the use of a process under steam pressure. Usually 10 lbs. steam pressure is used in these cookers which corresponds to a processing temperature of 240°F.

Home canners desiring to pack non-acid products should obtain a copy of United States Department of Agriculture Farmers Bulletin No. 1762. In this bulletin are described the necessary equipment, precautions, and time and temperature processing schedules required for the safe canning of non-acid foods in the home. If the necessary equipment cannot be obtained and the recommendations contained in the above bulletin cannot be faithfully followed, some means of preservation of non-acid products other than canning should be sought.

In the interests of public health, it is our sincere hope that home canners may soon become educated to the necessity of steam pressure processes for non-acid foods. Experience dictates that only by processes of this type, with a time and temperature schedule suitable for each particular product, can botulism from non-acid home canned foods be effectively controlled and ultimately eradicated.

AMERICAN CAN COMPANY

230 Park Avenue, New York, N. Y.

1. 1934. J. Home Econ. 26, 365-376.
1935. Amer. J. Pub. 25, 301-313.
1935. J. Amer. Med. Assn. 105, 205.
1936. Food Research 1, 171-198.

2. 1937. National Canners Association, Washington, D. C. Bulletin 26-L, 3rd Ed.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-eighth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

In Memoriam

Eli G. Alcorn, M.D., Columbus; University of Louisville School of Medicine, 1895; aged 95; former member of the Ohio State Medical Association and the American Medical Association; died May 1. Dr. Alcorn first practiced medicine at Hamlin, Va., later moving to Crown Point, Ohio, where he stayed for five years. He later practiced in Gallipolis for many years, and was also prominent in the civic life of that community. Dr. Alcorn was a former president and secretary of the Gallia County Medical Soicety, and had served as county coroner. He had also been a member of the local City Council, Board of Education and the Library Board. For years he was superintendent of the Methodist Episcopal Sunday School, and had held several high positions in the Masonic Order. Dr. Alcorn moved to Columbus in 1921 and continued in practice there until his retirement about twelve years ago. Surviving are a daughter and four sons, including Dr. John B. Alcorn and Dr. J. Garfield Alcorn, Columbus.

Charles B. Brewster, M.D., Eustis, Florida; Pulte Medical College, Cincinnati, 1904; aged 63; died April 24. Dr. Brewster retired to Florida in 1919, after having practiced in Delaware for 13 years. His widow, a son and a brother survive.

Henry H. Brundage, M.D., Bethesda, Md.; Fort Wayne College of Medicine, 1892; aged 80; died May 5. Dr. Brundage practiced in Delphos for five years, and in 1896 located in Bloomville, continuing there until his retirement in 1933. Surviving are his widow, a daughter, two sisters and a brother, Dr. Norman E. Brundage, Delphos.

Edward McDowell Cass, M.D., Utica; Ohio State University College of Medicine, 1909; age 53; died April 8. Dr. Cass had been health commissioner of Licking County since 1928. Prior to that time he was in private practice in Frazeysburg and Utica. During the World War, Dr. Cass served overseas as a major in the Medical Corps of the U. S. Army. His widow and a brother survive.

Abraham N. Garver, M.D., Lorain; University of Wooster, Medical Department, Cleveland, 1879; aged 82; former member of the Ohio State Medical Association and the American Medical Association; died April 26. One of Lorain's oldest physicians, Dr. Garver had practiced there for over 55 years, and previously practiced in Homerville. He was a former chief of staff of St. Joseph's Hospital, Lorain. Dr. Garver was a member of the Methodist Church. His son, Dr. Birt E. Garver, Lorain, a brother and a sister survive.

William H. James, M.D., Cleveland; Cleveland Pulte Medical College, 1898; aged 64; died April 6. Dr. James practiced in Cleveland for over 40 years. He was a member of the Eagles and the Masonic Order. Surviving are his widow and a daughter.

John Hicklen Jackson, M.D., Marion; Pulte Medical College, Cincinnati, 1878; aged 82; member of the Ohio State Medical Association and the American Medical Association; died April 6. Dr. Jackson practiced in Edison, Morrow County, until 1916, when he moved to Marion, continuing in active practice there until his death. He was a member of the Presbyterian Church. Surviving are his son, Dr. Chas. S. Jackson, Mt. Gilead, another son and a brother.

Arthur B. Lathrop, M.D., Swanton; Starling Medical College, Columbus, 1882; Bellevue Hospital Medical College, New York, 1883; aged 83; former member of the Ohio State Medical Association and the American Medical Association; died April 23. Dr. Lathrop retired because of ill health a few years ago after over 50 years of active practice in Swanton and Fulton County He was also active in the business and civic life of the community. Dr. Lathrop was a member of the Masonic Order and the Knights of Pythias. Surviving are two daughters and two sons.

Emily Louise Barnes Robinson, M.D., Cleveland; Cleveland University of Medicine and Surgery, 1889; aged 73; died April 17. One of the first women physicians in Ohio, Dr. Robinson practiced in Cleveland for more than 40 years, having served on the staffs of Huron Road and Woman's Hospitals. Two sisters and a brother survive.

Ira Clayton Myers, M.D., Cleveland; Eclectic Medical College, Cincinnati, 1922; aged 47; died April 30. Dr. Myers practiced in Cleveland for 15 years. He was secretary of the staff of Fairview Park Hospital. Dr. Myers was a Mason. His widow, a daughter and two sons survive.

Charles B. Weedman, M.D., Wellington; Western Reserve University School of Medicine, Cleveland, 1880; aged 82; former member of the Ohio State Medical Association and the American Medical Association; died May 10. Dr. Weedman practiced medicine in Nova until 1904, when he moved to New London. Seventeen years later he opened an office in Wellington, where he practiced until his retirement because of failing health three years ago. Dr. Weedman was a member of the Kiwanis Club and the Methodist Church. His widow, a daughter, a son and a sister survive.

Edward Reinert

Ph.G., M.D.

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RADIUM

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

A meeting of the Butler County Medical Society was held at the Middletown Hospital, Friday evening, April 28, with 34 members present. Dr. Donald L. Rose, Miami Valley Hospital, Dayton, spoke on "Sulfanilamide", after which the hospital was inspected and a buffet luncheon served.—Vera C. Iber, M.D., secretary.

CLINTON

Fourteen members of the Clinton County Medical Society attended a meeting of the society, Tuesday noon, May 2, at the General Denver Hotel, Wilmington. A round-table discussion of scarlet fever followed the luncheon. Dr. Ben R. McClellan, Xenia, was a guest.—News clipping.

HAMILTON

The following programs were presented by The Academy of Medicine of Cincinnati during May:

May 2—"Studies on Hypertrophic Arthritis", by Dr. Nathan Abrams, with discussion by Dr. Joseph A. Freiberg; "Dysentery in Children", by Dr. Merlin L. Cooper, with discussion by Dr. A. Graeme Mitchell.

May 9—Annual Banquet, with Dr. Richard S. Austin presiding and Dr. A. Graeme Mitchell, toastmaster. Dr. Walter E. Vest, Huntington, W. Va., president of the Southern Medical Association and member of the American Medical Association's Committee of Seven on the National Health Program, spoke on "Medical News from Washington". Dr. Parke G. Smith responded briefly to a greeting from the Academy in recognition of his elevation to the Presidency of the Ohio State Medical Association. Dr. Ralph H. Major, professor of medicine, University of Kansas School of Medicine, Kansas City, spoke on "Hippocrates and the Island of Cos". Charles S. Nelson, Columbus, Executive Secretary of the Ohio State Medical Association, was a guest at the banquet.—Bulletin.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

The regular monthly meeting of the Clark County Medical Society was held at the Hotel Shawnee, Springfield, Thursday noon, April 27, with 40 members present. Dr. Ben R. McClellan, Xenia, earnestly solicited the support of all physicians in the raising of funds for the memorial to be erected in honor of Dr. John Hole, pioneer Miami Valley physician. Dr. D. W. Hogue urged the members to communicate their views on pending legislation to members of the Ohio General Assembly. Following the business meeting, Dr. Joseph A. Link gave an interesting talk on "Orthopedic Case Reports".—G. M. Lane, M.D., secretary.

DARKE

Dr. P. J. Reel, Columbus, spoke on "The Problems of Pelvic Relaxations" at a meeting of the Darke County Medical Society, Friday, May 19, at Greenville. Dr. C. I. Stephen, Ansonia, delegate to the State Association, reported on some of the important happenings at the Toledo meeting.—W. D. Bishop, M.D., secretary.

GREENE

At a meeting of the Greene County Medical Society, Friday, May 12, Dr. H. W. Kendell, Dayton, lectured on "Practical Applications of Fever Therapy", and Dr. D. L. Rose, Dayton, discussed "Sulfanilamide and Fever Therapy in the Treatment of Gonorrhea". Dr. Ben R. McClellan gave an interesting account of the life of Dr. John Hole and urged every physician in the Miami Valley to contribute to the proposed memorial to Dr. Hole to be erected near Centerville. Dr. H. C. Messenger, delegate, reported on the sessions of the House of Delegates at the 93rd Annual Meeting at Toledo, May 3-4.—Donald F. Kyle, M.D., secretary.

MIAMI

Dr. J. D. Fouts, Dayton, gave an illustrated talk on "Experiences in Bronchoscopy" at a meeting of the Miami County Medical Society, Friday afternoon, May 12, at Coates Inn, West Milton. Dr. G. A. Woodhouse, the society's delegate to the Toledo meeting of the Ohio State Medical Association, reported on the meeting.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

A complimentary dinner meeting of the Montgomery County Medical Society was held in the Nurses' Home of Miami Valley Hospital, Dayton, Friday evening, May 5. Dr. Reuben L. Kahn, director of clinical laboratories, University of Michigan Hospital, Ann Arbor, Mich., spoke on "Paradoxic Serum Reactions in Syphilis".

Dr. Paul I. Hoxworth, of the Department of Surgery, University of Cincinnati College of Medicine, discussed "Blood Transfusion" at a meeting of the society, Friday evening, May 19, in the Auditorium of the Fidelity Medical Building.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

CRAWFORD

Dr. Paul W. Gebauer, Cleveland, was the guest speaker at a meeting of the Crawford County

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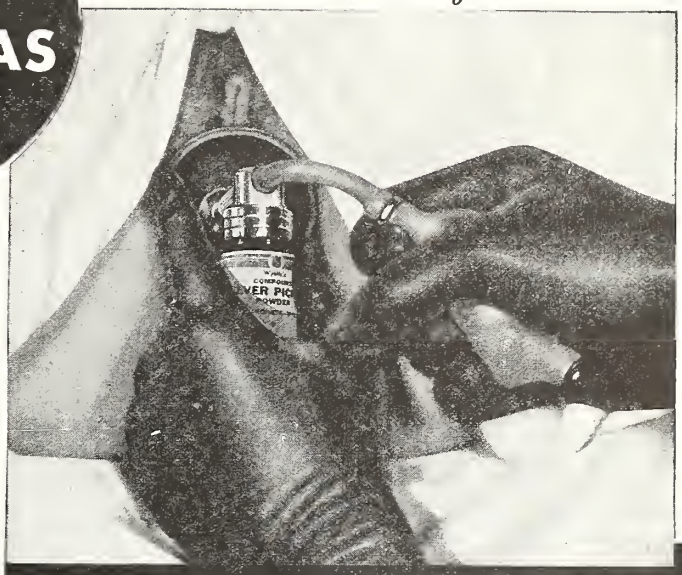
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Medical Society, Monday evening, May 1, at Bucyrus.—News clipping.

HARDIN

The Hardin County Medical Society met in regular session at Martin's Cafeteria, for dinner, Thursday evening, May 18. At the business session it was voted unanimously that the secretary telegraph Representative Gene Simpson, Hardin County's representative in the State Legislature, that the society is opposed to H. B. 392 and H. B. 188. The speaker of the evening, Dr. Harve M. Clodfelter, Columbus, gave an interesting and practical talk on the subject, "The Gall Bladder, Appendix and Related Gastro-Intestinal Disorders". This was the final meeting of the society until September.—John A. Mooney, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

The Toledo Academy of Medicine presented the following programs during May:

May 12—Section of Pathology, Experimental Medicine and Bacteriology. "Arterio-Sclerotic Heart Disease", by Dr. Clayton J. Lundy, associate professor of medicine, Rush Medical College, University of Chicago.

May 19—"Recent Advances in Allergy", by Dr. Warren T. Vaughan, Richmond, Va., president, Society for the Study of Asthma and Allied Conditions.

May 26—"The Bleeding of Late Pregnancy", by Dr. Ward F. Seeley, professor of obstetrics and gynecology, Wayne University College of Medicine, Detroit, Mich.—Bulletin.

WOOD

Dr. A. P. R. James, Toledo, was the speaker at a meeting of the Wood County Medical Society, Thursday evening, April 27, at the Woman's Club, Bowling Green. Dr. James presented an excellent Kodaslide demonstration of various skin diseases encountered by the general practitioner.

"Chemotherapy", was the subject discussed by A. Rigby, consulting chemist, Toledo, at a meeting of the society, May 18.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

Dr. Elmer Hess, Erie, Pa., spoke on "Child Delinquency" at a meeting of the Ashtabula County Medical Society, Tuesday night, April 11, at Ashtabula.

At a meeting of the society, Tuesday night, May 10, at Broadway Inn, Geneva, Dr. Theron S. Jackson, Cleveland, spoke on "The Treatment of Gall Bladder Diseases", and Dr. A. J. Pearse, health commissioner of Cuyahoga County, discussed "The

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OBSTETRICS—Two Weeks Intensive Course June 19, October 23. Informal Course every week.

FRACTURES & TRAUMATIC SURGERY—Ten Day Formal Course June 19, September 25. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course starting September 11. Informal Course every week.

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Treatment and Prevention of Tuberculosis". The meeting was attended by 24 members.—News clipping.

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during May:

May 8—Pediatric Section. "Five-Year After-Histories in Rheumatic Carditis of Children", by Dr. F. A. Benes; "Incidence of Whooping Cough in Pre-School Children in a Community Largely Immunized with Sauer's Vaccine", by Dr. J. A. Garvin; "Experiences with Sulfapyridine (Dagenan) in Pneumonias of Infants and Children", by Dr. R. P. Fulton.

May 10—Medical Practice Section. "Mechanisms of Abnormal Kidney Functions", by Dr. J. M. Hayman, Jr.; "The Pathology of Hypertension", by Dr. Howard T. Karsner.

May 12—Joint Meetings, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Effect of Certain Sensitizing Influences on the Hyperactive Carotid Sinus", by Dr. A. D. Nichol and Dr. H. Straus; "Photographic Records of the Phasic Blood Flow in Coronary Arteries Obtained by a New Differential Manometric Method", by Dr. Donald E. Gregg and Dr. Harold D. Green; "Ketogenic Effect of Anterior Pituitary Extracts in Adrenalectomized Rats", by Dr. Reginald A. Shipley; "The Production of Hyperplasia in the Reticulo-Endothelial System with Extracts from Urine with Patients with Leucemia", by Dr. Franklin R. Miller, Dr. Joseph T. Wearn and Dr. Robert W. Heinle; "Effect of Age and Starvation on Glycogen Storage in Liver, Muscles and Kidneys", by Dr. Walter Heymann.

May 19—Annual Academy Meeting. "Chronic Suicide", by Dr. Carl A. Menninger, Topeka, Kansas.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

PORTAGE

At a meeting of the Portage County Medical Society, Thursday evening, May 11, at the County Health Office, Ravenna, reports were given on the Toledo meeting of the Ohio State Medical Association, and on various postgraduate meetings. Dr. P. L. Harris, county health commissioner, explained the program of the State Department of Health for the control of veneral diseases.—E. J. Widdecombe, M.D., secretary.

STARK

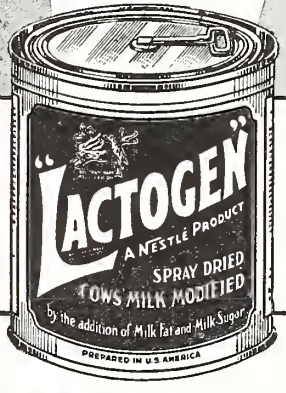
A golf tournament preceded the meeting of the Stark County Medical Society, Wednesday evening, May 24, at the Alliance Country Club. Following dinner and the presentation of prizes, the motion picture "Syphilis" was shown through the

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SUMMIT

Dr. J. N. Weller discussed "Coronary Occlusion" at a meeting of the Summit County Medical Society, Tuesday evening, May 2, at the Mayflower Hotel, Akron.—Bulletin.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

FAIRFIELD

"Diseases of the Coronary Vessels" was the subject discussed by Dr. S. A. Hatfield, Columbus, at a meeting of the Fairfield County Medical Society, Tuesday noon, April 11, at Lancaster.

Dr. John D. Dunham, Columbus, was guest speaker at a meeting of the society, Tuesday noon, May 9.—News clipping.

GUERNSEY

Dr. Gilman D. Kirk and Dr. Chas. W. Pavey, Columbus, were the guest speakers at the bimonthly luncheon meeting of the Guernsey County Medical Society, Thursday noon, April 17, at Cambridge.

Dr. E. F. Hunter spoke on "Acute Pancreatitis" at the meeting, Thursday noon, May 4.—O. Reed Jones, M.D., correspondent for *The Journal*.

PERRY

At a meeting of the Perry County Medical Society, Thursday noon, April 20, at the Park Hotel, New Lexington, Dr. Harold F. Minshull, spoke on "Medical Economics".—News clipping.

WASHINGTON

The regular monthly meeting of the Washington County Medical Society was held at the Wakefield Hotel, Marietta, Wednesday, May 10, with Dr. Samuel W. Weaver, Youngstown, as guest speaker. His subject was: "Brain Surgery and Care of Cerebro-cranial Accidents". Two cases were presented for examination and discussion. Guests at the meeting were Dr. C. V. Davis, Pennsville, and Dr. C. E. Northrup, McConnelsville, members of the Morgan County Medical Society. Dr. Geo. E. Huston gave a splendid report on the actions of the House of Delegates at the Annual Meeting of the State Association in Toledo.—A. Howard Smith, M.D., president.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

LAWRENCE

A meeting of the Lawrence County Medical Society was held at General Hospital, Ironton, Tuesday, April 18. Dr. Geo. K. Mahl and Dr. Chas. A. Hoffman were instructed to meet with representatives of the local bar and dental societies for the purpose of arranging a joint meeting of the three societies. Various case reports were considered. Dr. Ralph F. Massie, Dr. J. D. Swango and Dr. Mahl gave an account of medical meetings and clinics which they had recently attended.—News clipping.

SCIOTO

Dr. Francis Scott, Huntington, W. Va., spoke on "Low Back Pain" at a meeting of The Hempstead Academy of Medicine of Scioto County, Monday evening, May 8, at Portsmouth General Hospital.—W. M. Singleton, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

The Columbus Academy of Medicine presented the following programs during May:

May 1—"The Pathology of Heart Disease", by Dr. Horace B. Davidson.

May 15—Forum discussion of social and economic problems, with special reference to medical service plans.

May 22—Section in General Medicine. Following inspection of the new building of the County Tuberculosis Hospital, Dr. Myron D. Miller, chief of staff, and associates gave demonstrations of modern methods in the treatment of tuberculosis.—Bulletin.

MORROW

Dr. E. L. Brady, Marion, read a very interesting paper on "Diseases of the Eye Most Commonly Met in General Practice", at a dinner meeting of the Morrow County Medical Society, Tuesday, May 9, at the Globe Hotel, Mt. Gilead.—T. Caris, M.D., secretary.

ROSS

Dr. Richard I. Brashear, Columbus, was the guest speaker at a meeting of the Ross County

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Medical Society, Thursday evening, April 6, at the Warner Hotel, Chillicothe.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ASHLAND

"Backache" was the topic discussed by Dr. Clarence H. Heyman, Cleveland, at a dinner meeting of the Ashland County Medical Society, Friday, May 12, at Pelat's Restaurant, Ashland.—H. Wayne Smith, M.D., secretary.

LORAIN

Dr. Burdette Wylie, Cleveland, spoke on "Factors Involved in an Improved Puerperal Death Rate", at a meeting of the Lorain County Medical Society, Tuesday afternoon, May 9, at the Lorain Country Club, Lorain. — L. H. Trufant, M.D., secretary.

RICHLAND

A joint meeting of the Richland County Medical and Dental Societies was held at Mansfield General Hospital, Thursday afternoon, April 27. Weston Price, D.D.S., Cleveland, spoke on "Relation of Diet to Dental Nutrition".

Dr. J. W. Thomas,Cleveland, spoke on "Allergy" at a meeting of the society, Thursday evening, May 18, at the Shelby Country Club. Several members played golf in the afternoon.—L. D. Bonar, M.D., secretary.

WAYNE

Dr. Samuel O. Freedlander, Cleveland, was guest speaker at a meeting of the Wayne County Medical Society, Friday night, April 28, at Wooster.—News clipping.

Life Expectancy Shows Increase

The total "life expectancy at birth" for the United States in 1938, according to computations based on certain estimated factors and released recently by the United States Public Health Service, was 62 years. This figure compares with an expectancy of 60.26 in 1931, and 60.9 as estimated for 1937. The life expectancy now is almost twice as great as it was 100 years ago. For the 7 years since 1931 a gain in expectancy of 1.74 years is indicated, while a gain of 1.1 years is shown in 1938 over 1937. The expectation of life at birth, it is explained, "is the average age of death of a hypothetical group of persons each of whom is subject to the same age specific mortality rates throughout his lifetime."

Troy—Dr. Russell W. Gardner has been named by the National Rifle Association as captain of the American rifle team which will go to Bisley, England, in June to attempt to bring back to this country the famed General John J. Pershing trophy, which the English have held since 1931.

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The Physician's Bookshelf

Principles of Hematology. Russell L. Haden, M.D. *Lea & Febiger, Philadelphia,* $4.50. The author, one of our own members, has written a practical manual. While it is reasonably complete, it is free of the rare and the complex and presents that which we can use from the viewpoint of pathologic physiology.

A Manual of Fractures and Dislocations. Barbara B. Stinson, M.D. *Lea and Febiger, Philadelphia,* $2.75. The author, as one associated with the staff of the fracture service of the Columbia Medical Center since its beginning, has produced a most useful manual. It offers the fundamental knowledge needed by every physician without cluttering its pages with the detailed information demanded of the expert. In addition to being helpful to the general practitioner, it is the kind of a book which those who never expect to meet a fracture, except those which may occur in our own homes, should read.

The Surgeon's Daughter. Margaret Hertzler Brown. *Wetzel, Los Angeles,* $2.00. The daughter of the author of "A Horse and Buggy Doctor", has written her first novel. It is the revealing story of a girl from an orphanage, thence to a hospital and finally into life itself with all of its tribulations and romance. An entertaining story with thought provoking experiences.

Beauty Plus. Mary MacFadyen, M.D. *Emerson Books, New York City,* is a manual on how to attain beauty and charm done in terms and with a viewpoint which might shock our elders but is seeing eye to eye with the present generation. To a man, it is amazing how many things may contribute to these accomplishments.

Transactions of the Eighteenth Northern Congress for Internal Medicine in Helsinfors. June 29-July 1, 1937. Supplement 89. Acta Medica Scandinavica, 1938. 350 pages. This is a report of 44 articles on internal medicine by Scandinavian physicians. Four articles on various aspects of fish tapeworm infestation can have little practical value in this country, but three articles on the treatment of the various forms of Bright's Disease are extremely ably presented and constitute a welcome change to the practitioner who must do something about such cases. There is an excellent article on *The Treatment of*

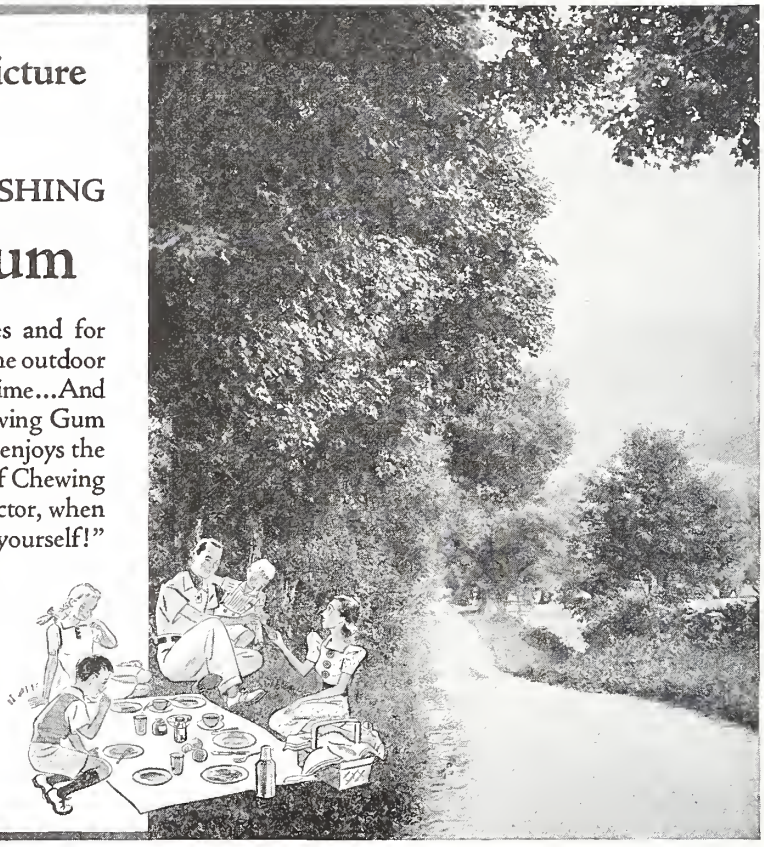
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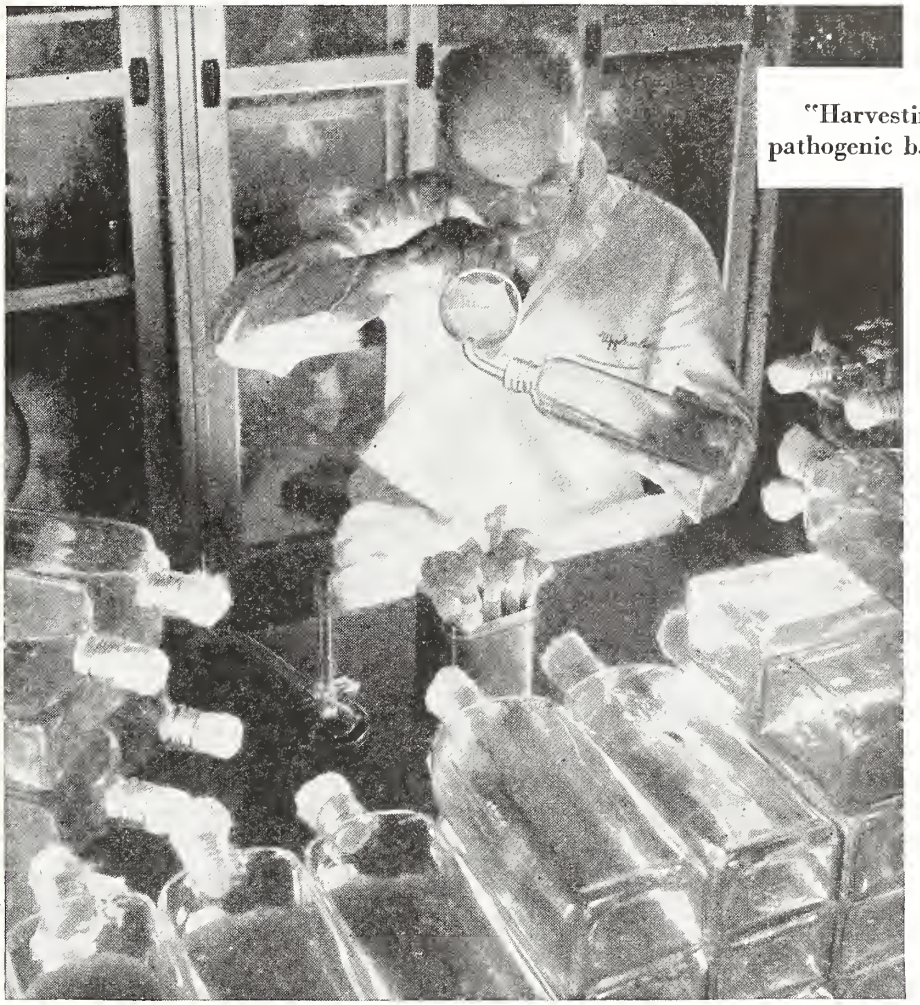
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Principles of Healthful Living. Edgar F. Van Buskirk, Ph.D. *The Dial Press, New York City,* is a compilation by a professor of hygiene at Stephens College, in answer to the questions of students, friends, and survey of newspaper articles. In this, he has found out both what is desired and what is necessary in matters of health information.

Transactions of the International College of Surgeons, published under the auspices of the United States Chapter. Volume I, Nos. 1 and 2., makes its appearance in a pleasing format. Under the presidency of our own Dr. André Crotti, the College has made a good beginning in starting a new medium of publication for research, clinical observations, and experimental work in surgery. The subscription price is $6.00 per volume.

Consultation Room. Frederic Loomis, M.D. *Knopf, New York.* $2.50. This well known woman's doctor gives out more information than is generally included in a book intended for general circulation—even in these days of frankness. It will appeal especially to those who are curious about the relations of a physician to his patients and to those who are concerned with telling the story of modern medicine to the public.

Surgical Pathology of the Diseases of the Mouth and Jaws. Arthur E. Hertzler, M.D. *Lippincott, Philadelphia.* $5.00. The author of "The Horse and Buggy Doctor", with this volume completes his series of ten volumes on surgical pathology. It is written in his own style and presents his personal experience in this field as a general surgeon and student of pathology. As such, it belongs on the "must" list of every dentist and physician interested at all in the field.

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News Notes

Alliance—Dr. George L. King has been nominated for membership on the Board of Trustees of Mt. Union College.

Barberton—"Socialized Medicine" was discussed by Dr. Paul G. Langan at a recent meeting of the Rotary Club, of which Dr. H. A. Finefrock is vice-president.

Bellefontaine—Dr. O. C. Amstutz spoke on "Heart Ailments and Their Treatment" at a recent meeting of the New Hampshire P.T.A.

Cleveland—Under the auspices of the Detroit Oto-Laryngological Society, Dr. Myron Metzenbaum recently gave a surgical clinic at the Detroit Children's Hospital on the resetting of the dislocated septal cartilage in children.

Columbus—Addresses in opposition to socialized medicine and the Wagner National Health Bill were made by Dr. C. C. Sherburne at recent meetings of the Chillicothe Kiwanis Club and the Delaware Kiwanis Club.

Dayton—Dr. T. H. Dickinson and Dr. Howard V. Dutrow discussed proposed governmental health programs at a recent meeting of the Dayton Chapter of the American Association of Social Workers.

Fremont—Dr. T. R. Cunningham played one of the leading roles in the play, "Holiday", presented recently by St. Joseph's Dramatic Guild.

Gallipolis—"Danger Signs in Ear Diseases" was the topic discussed by Dr. N. A. Martin at a recent meeting of the Rotary Club.

Granville—Dr. Geraldine Crocker is the new health commissioner of Licking County.

Ironton—The Charles S. Gray Deaconess Hospital was recently re-opened under the management of Dr. W. F. Marting and associates.

Jefferson—Dr. Harry K. Lynne recently addressed the Rotary Club on "Socialized Medicine".

Lima—The opening address in a series of lectures sponsored by the education committee of the Lima League for Civic Improvement was made by Dr. E. B. Pedlow on the subject "Preparation For and Responsibilities of Parenthood".

London—Dr. Robert S. Postle has announced his candidacy for the Republican nomination for mayor.

St. Marys—Dr. Guy E. Noble gave a talk on "State Medicine and What It Is" at a recent meeting of the Rotary Club.

Steubenville—Dr. J. P. Young, Jefferson County health commissioner, recently urged local citizens through the press to write their congressmen and senators in opposition to the Wagner National Health Bill.

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Vol. 35 JULY, 1939 No. 7

JONATHAN FORMAN, M.D., *Editor*

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Twenty Years in the Prevention of Goiter (1916-1936)

O. P. KIMBALL, M.D.

THE prevention of goiter is based entirely upon the researches of Dr. David Marine and his associates. Marine made very careful studies of the anatomical structure of the thyroid gland, the nature of the glandular hyperplasia and the relation of the iodine content to the cellular structure of the gland. He found the changes and relationships constant in our domestic animals, the sheep, dog, ox and hog. He observed that so long as the iodine content was one milligram or more to one gram of dried thyroid there was no tendency toward hypertrophy and hyperplasia of the gland. As soon, however, as the iodine content fell below one milligram of iodine to one gram of dried thyroid, active hypertrophy and hyperplasia began. He concluded, therefore, that the glandular hypertrophy and hyperplasia which is commonly called "goiter" is due entirely to a deficiency of iodine in the thyroid gland. His first opportunity to prove this theory on a large scale was through the prevention of goiter in the brook trout in the state fish hatcheries of Pennsylvania. This study together with his researches on animals form the basis of his teaching: "Simple goiter is the easiest known disease to prevent."

The prevention of goiter in man was started by Marine and Kimball in the Public Schools of Akron in 1916. A survey of the condition of the thyriod gland was made of all girls in grades five to twelve inclusive and the treatment for the prevention of goiter commenced with all who chose to carry out this prophylactic measure. Two grams (30 gr.) sodium iodide was given in the drinking water 0.2 gm. each day for two weeks each spring and fall. Re-examination of the thyroid of all the girls whether or not they were taking the prophylactic treatment and examination of the incoming fifth grade was made twice yearly throughout this period (1916 to 1920). Approximately 10,000 girls were studied and 5000 of these were observed for one year or more. About one-half elected to take the prophylactic measure; the others, not wishing to do so, automatically became the control group. The difference between the two groups was marked both in the prophylactic and therapeutic effect. Among the girls recorded as normal in relation to goiter, there was an increase in 0.2 per cent of those taking the iodine, while in those not taking it the increase was 27.6 per cent. Of the girls classed as having slightly enlarged thyroids at the first examination and not taking the prescribed iodine, 13.3 per cent underwent further enlargement in contrast to 0.3 per cent of those taking the prophylactic treatment. During the same period, among those with moderately enlarged thyroids there had been a 79.7 per cent decrease in the cases where the iodine had been taken while the decrease in the control group was but 12.4 per cent. This last figure is not accurate as many

The Author

● Dr. Kimball, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1918; fellow American College of Physicians; member American Association for Study of Goiter.

cases not taking iodine under the school procedure were taking it in some form from their physician. In all the cases taking the prescribed two grams of sodium iodide twice yearly there was not a single instance of hyperthyroidism or any evidence of irritability simulating it. The results of this experiment proved, beyond a doubt, that goiter could be prevented in man as easily as in animals.

Following the publication of the work in Akron, Klinger started the prophylaxis throughout the schools of Zurich, Switzerland. Early in 1921 his reports showed as striking results in this district as we had obtained in Akron.

The next few years (1920 to 1924) were spent in an effort to find the most practical and suitable method of supplying this important food element (iodine) throughout the endemic goiter districts sush as our Rocky Mountain states, the Great Lakes' Basin and the Appalachian Mountain region. So far, we had stressed the prevention of goiter during adolescence but equally important is congenital life, pregnancy and childhood. Hence it seemed a common food problem and a public health measure.

During 1921 to 1922 Hayhurst was pointing out that our common table salt has been the source of important elements, especially iodine. He believed that our present-day methods of refining, whereby every trace of iodine is removed, have in some sections played an important part in the increasing incidence of endemic goiter. Convincing evidence of the truth of this teaching was found in our study made in West Virginia, more especially in the Kanawha River Valley. In the spring of 1922, when surveys were made to determine the incidence of goiter throughout this section, we were told by several of the older physicians in Charleston that before 1900 endemic goiter was an exceedingly rare entity in this valley, but soon after this date all the doctors had noticed a definite increase in simple goiter, and our survey of the schools of Charleston and Huntington showed that 60 per cent of the girls from the fifth to the twelfth grades inclusive had enlarged thyroids. This was indeed a challenging problem, and with the assistance of the State Health Department we found, after considerable study, that the condition as just stated was exactly true of the section, and that the only change in food or water was in the table salt.

Until about 1900 all the table salt used in this valley came from salt wells in this region. It was within the memory of every citizen 50 years of age that the table salt mined and used in this vicinity was a crude salt, described by everyone as being coarse and containing dirty brown particles. In 1898 the salt companies of Ohio and Michigan worked out and put into actual practice the new process of refining salt, as a result of which this whole section was within a few years flooded with pure fine white salt. Naturally, the local salt companies with their crude, dirty brown salt could not compete. As stated previously, the only change in food or water was in the supply of salt. It followed that within a quarter century the incidence of endemic goiter was as high in this valley as around the Great Lakes. This experience, together with a similar report from Switzerland emphasized, what is now a well known fact, that in many places either unrefined salt or iodized salt is our only source of food iodine.

In a few cities the idea of putting sodium iodide in the water supply was suggested. This method was actually carried out in Rochester, New York, for a period of a few years. In other cities the school children were being given chocolate iodine tablets (iodostarine) containing 0.01 gm. of iodine once a week throughout the school year. Some communities were advocating the use of foods rich in iodine. The use of iodized salt was considered as early as 1919 having been suggested in this country by Dr. H. G. Sloan in 1918. At first this was advised to be sold only on prescription through the drug stores and consequently its use was very limited. The use of iodized salt as a prophylactic measure was started in Switzerland in 1922 and was bound to be the

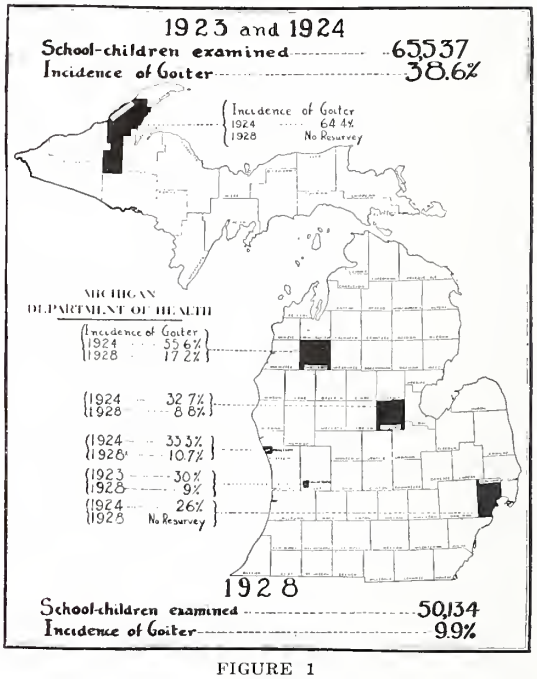


FIGURE 1

method of choice by health departments in this country.

The first really progressive, state-wide movement for the prevention of goiter was made by the State Health Department of Michigan in 1923. A survey of representative sections of the

state to determine: (1) the incidence of goiter among the school children; and (2) the amount of iodine in the water supply of each section was made. Naturally, the amount of iodine in the water supply is the best index to the food iodine found in any section. The results of this survey showed beyond a doubt that there is a correlation between a scarcity of food iodine and a high incidence of simple goiter. These data are given here only geographically to recall the areas examined, the incidence of goiter and the amount of iodine in the water supply. (Fig. 1.) From this study it is apparent that the incidence of goiter in any county of Michigan is inversely proportional to the iodine content of the water supply.

Immediately following this survey a program of goiter prevention was outlined which emphasized the importance of a complete resurvey of the same areas in ten years. A statewide campaign by the State Department of Health was made to emphasize the fundamental causes of endemic goiter and the principles of its prevention. In the spring of 1924 a special committee was appointed by the State Medical Society to work with the State Department of Health in carrying out this work. These two groups representing the medical profession of the state, cooperated with the Wholesale Grocers' Association and the Salt Manufacturers' Association to the effect that, beginning May 1, 1924, the salt manufacturers produce and put on the market throughout Michigan an iodized salt containing one part of potassium iodide to 5000 parts of salt. The wholesale grocers did everything they could to bring about the sale of this salt only, and the State Department of Health was responsible for advising the public to use it. The fact should be re-emphasized that there was no law compelling people to use iodized salt, only education and advice, as in any other health program, in the form of news articles throughout the state, health talks to school children and parents and placards to be used in the schools. All this information and advice was given by the State Department of Health and the State Medical Society.

In the city of Detroit, the City Health Department freely urged the use of iodized salt and as nearly as we could ascertain 96 per cent of the families were using it before the close of 1924. In the spring of that year the incidence of goiter throughout the schools of Detroit was 35 per cent. A resurvey was made each year (1924 to 1928) and the decrease in goiter was as marked here as it had been in our work in Akron. By 1930 the incidence of goiter throughout the schools of Detroit was 3 per cent and the results throughout the entire state were equally as decisive. Among the school children of Michigan examined in 1923 and 1924 the incidence of goiter was 38.6 per cent; in 1928 it was 9.9 per cent and in 1936 among those using iodized salt regularly it was 2.88 per cent, of those never using it 19.29 per cent and of those who used it irregularly 5.47 per cent. Of the total number examined, 61,649, the percentage of goiter was 8.2. A valuable study was possible in the comparison of two cities, Houghton and Calumet, in Houghton County. As these two cities were but 30 miles apart, the natural factors determining goiter would be the same, but the percentage of goiter in Houghton High School was 12.12 and in Calumet High School, 28.72. This difference was due to the fact that in Calumet, a mining town, approximately two-thirds of the families were on relief during the years 1932-1935 and only non-iodized bag salt was given to the families on relief. In the period of three

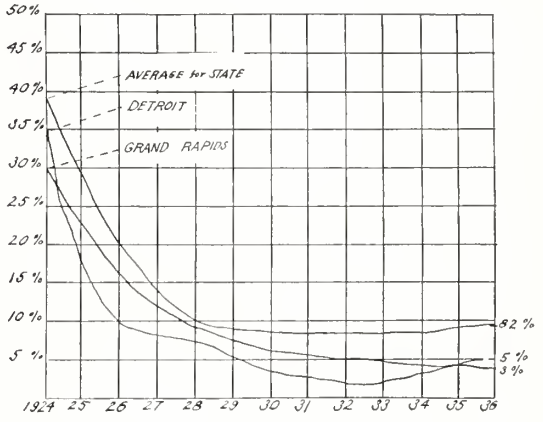


FIGURE 2

years with the only source of food iodine closed to the homes on relief, goiter is seen to be proportionately as prevalent as ever.

During the year 1928 we made a complete resurvey to discover the efficiency of this type of prevention and to answer the many questions concerning the safety of the general use of iodized table salt. In order to determine the safety, we had to study adults with goiter to see if any had become toxic from the use of iodized salt during the previous four years. To this end, the County Medical Society in three counties in Michigan, and the State Health Department arranged clinics in which we carefully studied 1229 adults with long standing goiter. Of this number 4.1 per cent of those who had used iodized salt continuously for four years developed symptoms of toxic goiter, while 55.5 per cent of those who had purposely avoided its use were found with toxic goiter. Stated briefly, the use of iodized salt was a very efficient and practical method of goiter prophylaxis and one found to be entirely safe.

The incidence of goiter among the school children of Cleveland in 1924 was 31 per cent. In this community, however, the prevention of goiter and especially the generalized use of iodized salt had been frankly and repeatedly criticized by some

well known surgeons. There was such a widespread fear of the so-called "dangers of iodized salt" that less than one-half of the homes in Cleveland ever used it. In 1936 a resurvey showed the total incidence of goiter to be 18.5 per cent. Among those using iodized salt regularly it was 7.7 per cent and among those not using it at all the incidence of goiter was 30.7 per cent or practically the same as in 1924 before any preventive measures had been started.

Following the survey of 1928 it was obvious that we would need to recheck the iodine content of the various products. The Michigan State Department of Health had cooperated with each salt manufacturer in the State, to the effect that the brands of iodized salt manufactured in Michigan were

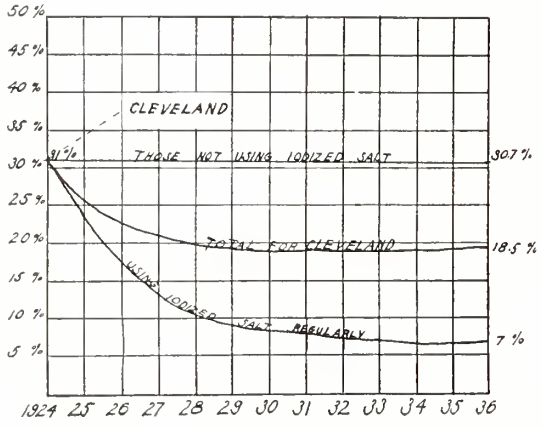


FIGURE 3

fairly accurate. Two large producers had demonstrated that the iodine content could be made and maintained at a certain percentage with as much accuracy as can be expected in our best drugs. In Ohio there was no inspection by the State Department of Health, but in 1931 the Health Department of Cleveland made iodine determinations on eight brands of iodized salt sold in Cleveland. Three of the eight brands contained no iodine. The three brands were manufactured in the vicinity of Cleveland and sold by two of our large chain stores. Neither of these two companies had any iodine or the apparatus to mix iodized salt in their plant, yet they were furnishing approximately 40 per cent of the iodized salt for this community. This condition was gradually changed and by 1936 the iodized salt manufactured in Ohio compared favorably with that of other states.

Iodized salt in this country is standardized so that each individual using the average amount of salt will get 400 mg. of iodine per year. If sodium iodide is used the percentage is 0.02; if potassium iodide is used 0.023. We appreciate that this amount is maintained more from practical clinical experience than from the theoretical needs estimated from the studies of Van Fellenberg and others. We have seen a few cases of children and adults developing goiter even though using constantly the best grade of iodized salt. In each case, however, there has been some qualifying condition such as unusual growth, chronic illness, pregnancy or a low intake of salt. We have seen no authentic case of harm due to the iodine in amounts used, and feel it would be entirely safe to maintain the amount at 0.02 per cent of sodium iodide. However, the actual average of all the reliable brands of iodized salt examined during the past 10 years has been only half this amount or .01 per cent. Also, other countries are obtaining good results with even smaller amounts. Therefore, we advise that the standard for this coutry in the future will be .01 per cent of sodium iodide.

SUMMARY

We have definitely proved that:

1. Simple or endemic goiter is a deficiency disease and this deficiency is iodine in our food and drink. This iodine deficiency was caused primarily by geological conditions and has been made worse by our refinement of foods such as salt.

2. The addition of an exceedingly small amount of iodine to our food in endemic goiter regions prevents goiter. The most practical method yet devised is iodized salt.

3. There is no basis for the old teaching that the general or so-called indiscriminate use of iodine in amounts sufficient to prevent goiter might have some injurious effects.

4. In the prevention of endemic goiter we prevent adenomas and toxic goiters, cretinism and cretinoid type of subnormal mentality, deaf-mutism, congenital malformations and many cases of infantilism in girls or a relative subnormal development.

5. There is no contraindication to the amount of iodine used in iodized salt in this country. Judging from the observations of Dr. Hans Eggenberger throughout Herisau, Switzerland, we are obtaining better results in America than they are getting in Switzerland with the iodine content of their standard salt only one-tenth of our iodized salt. At the international meeting in Washington, D.C., September, 1938, Dr. Eggenberger proposed to the American Association for the Study of Goiter that this Association go on record in favor of the prevention of goiter in America by the use of iodized salt. This proposition was unanimously adopted. In November of 1938 the advisory council of the American Medical Association on foods and drugs recommended that iodized salt, .01 per cent (1:10000) be used wherever goiter is endemic.

6. In each state where goiter is endemic and iodized salt is used, the State Department of Health should recheck the iodine content of each

brand yearly and thereby maintain a set standard throughout this country. Then, endemic goiter with all of its manifestations will have been eliminated.

940 Hanna Bldg.

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National Health Program

If we can hold the gains of the past generation while the federal government experiments with its own structure and functions at the expense of the taxpayers and the stability of local government, we shall be able to continue for the future that development of official and voluntary preventive medicine that has been the particular glory of social progress of the past half-century, based upon the application of the increasing knowledge of human biology for social ends.

The ever sheeplike and gullible lay public that still believes in medical and social panaceas has by numerous devices of plausible publicity been persuaded that there can be put at their disposal greatly increased medical benefits if only they demand them. There is neither spontaneous nor well-informed demand, nor likelihood that any great increase in useful application of medical services as proposed in the federal spending project will result from carrying out the so-called "National Health Program", which could not be better assured by using facilities and methods that we are experienced in, and at costs within our means, without involvement in indefinite and accumulative debts to our successors, both patients and physicians.—Haven Emerson, M.D., New York City; N. Y. State Jr. of Med., Vol. 39, No. 10, May, 1939.

Tubal Pregnancy

The most important conditions to consider in the differential diagnosis are abortion, adnexal disease, ovarian cyst, appendicitis, fibroma, and polyps. In threatened or incomplete abortion the pain is not so severe and rarely unilateral. A unilateral mass with tenderness would not be found, and the bleeding is much larger in amount. Up to the sixth or eighth week the uterus is of a generous size and feels similar in both conditions.

In acute pelvic inflammatory disease, gonorrhea or puerperal infection, the fever is higher than in ruptured tubal pregnancy, and there is a lack of suggestive signs of pregnancy, with an absence of marked shock. Pelvic examination in inflammatory conditions usually reveals a bilateral mass.

In the presence of a unilateral mass, caused by ovarian cyst, little or no fever, a lower pulse rate, less pain and lack of history suggestive of pregnancy are important factors to be considered. A ruptured corpus luteum or follicular cyst with intra-abdominal hemorrhage would be all but impossible to diagnose from a beginning rupture of ectopic pregnancy. In appendictis, rigidity is more marked, the pulse much slower, and without a history of pregnancy and with pelvic findings negative, tubal pregnancy should be easily eliminated. Fibroma and polyps in most cases have an entirely different history, with no pain. The temperature and pulse are normal and a bimanual examination would not reveal the usual tenderness found in beginning rupture of tubal pregnancy, and shock would be entirely lacking except in cases with profuse vaginal bleeding. In making a diagnosis no single sign or symptom should be placed above another. The entire clinical group with all findings should be considered in a single picture.

Collected statistics are usually gathered on a basis of tubal pregnancies correctly diagnosed. With this method of figuring, some clinics can boast of a correct diagnosis in a high percentage of cases. However, if these statistics took into account the number of cases diagnosed as tubal pregnancies which proved not to be such, the percentage of correct diagnosis would fall appreciably. One fact is undeniable: the diagnosis cannot be made unless the physician has the condition in mind. He must remember that any vaginal bleeding in the child-bearing age following a missed menstrual period might possibly mean an ectopic pregnancy, especially when preceded by, occurring with, or followed by pain, however mild.—W. P. Lowry, M.D., Wichita Falls, Texas; Tex. State Jr. of Med., Vol. XXXV, No. 1, May, 1939.

Treatment of Involutional Melancholia

ROBERT R. HAYS, M.D.

SOME years ago a medical man of high standing, who was engaged in post-graduate teaching, made the statement that there were too many papers published. He went on to say that if the ones working with new treatments would only wait five years, very few reports indeed would be made of the efficacy of new methods. It would seem that such an attitude, while containing much of merit, would at the same time materially retard the dissemination of information and tend to dull the urge toward clinical investigation and research.

Two new pharmacologic methods of treatment of mental ills have been much publicized recently, both in the medical literature and in the lay press. Perhaps they have received too much attention from physician and layman alike. Possibly within a few years insulin and metrazol shock therapy will have fallen into disfavor. However, at the present time we are seeing things happen which may cause considerable revision of psychiatric opinion as regards many of the common psychotic conditions encountered in mental hospital practice.

While both metrazol and insulin apparently were intended primarily as treatment for the schizophrenic psychoses, it is becoming apparent that metrazol at least, may be useful in other mental conditions of a so-called functional nature. Reports in the literature vary widely with respect to the value of convulsive therapy. Some workers report that they consider it of little or no value. Others report that it is used to quiet excited patients. Another group seems to consider it useful merely as a means of facilitating rapport with the patient, and as an adjunct to psychotherapy. Still another group reports as high as 85 per cent remission rate in selected early cases. On one point there seems to be common accord; that is, that results are much better in cases of short duration. In general this has been the trend in our cases at the Just-A-Mere Home and Hospital, although we have observed social remissions and apparent recoveries in some psychoses of several years' duration.

A little over a year ago we began the use of metrazol therapy. Its use has not been confined to the schizophrenic group. Its use has been limited, however, to that large class of psychoses for which there is as yet no demonstrable organic pathology. The chief criteria in the selection of patients for treatment have been the physical condition of the individual, and a definite psychosis.

The purpose of this paper is not to analyze the results of treatment from the statistical standpoint, but to call attention to two patients presenting the classical features of involutional melancholia, and who were treated by metrazol convulsions with apparent complete remission. Metrazol therapy was begun after estrogenic hormone treatment had produced no apparent change in the mental reactions, and little in the physical condition of the patients.

It is fully realized that two cases of any disease is no basis for a paper which has as its object the forming of conclusions. This is written in hope that other workers will see fit to make similar investigations, or report the results already obtained in cases of the same nature. There are some who hold that involutional melancholia is not of itself a distinct clinical entity, but rather a phase of manic-depressive psychosis or schizophrenia occurring at the involutional period. In making the diagnosis in the cases here reported, the syllabus of the National Committee for Mental Hygiene has been followed, especially as regards the differential criteria. The patients were given a careful physical and neurologic examination, and routine laboratory tests to exclude as nearly as possible the likelihood of any contra-indicating organic disease. They were then given the routine preparation for metrazol, and shock induced three times weekly. The improvement became evident almost from the beginning and continued steadily until it was felt that no further treatment was necessary. During the period of metrazol therapy the patients received no additional treatment, other than the usual alkalinization. Examination after the cessation of treatment did not reveal any striking physical changes other than a gain in weight and the exhibition of a great deal more energy. Mentally, the delusional trends disappeared, as well as the emotional depression and the agitation. Interest in the environment was re-established and both asked to be assigned some work. Complete insight was gained by both patients and they expressed their appreciation of the results of treat-

The Author

Dr. Hays, Akron, Ohio, is a graduate of Jefferson Medical College, 1922; member American Psychiatric Association, American Association on Mental Deficiency; diplomate American Board of Psychiatry and Neurology; medical director, Just-A-Mere Home and Hospital, Akron.

Submitted February 23, 1939.

ment. They both reasoned correctly concerning other than personal matters.

Both have been released from the hospital and have returned to their homes and have resumed the status previously held; namely that of housewife. Relatives report that they are able to carry on the customary duties as if nothing had ever happened to them.

CASE REPORTS

Case No. 1—hospital case record No. 751, Edith R., age 49, married and a housewife. This patient was admitted on June 7, 1938, having been committed by the Probate Court of Summit County. The family history was essentially negative. The personal history revealed that 11 years ago she had had a cervical repair operation. The menstrual periods ceased two years previously. She was married at 18 years of age and had three daughters who are living and well. The marital life was said to be happy until the onset of the present illness. This developed in November, 1937, when she became depressed and delusional. At the time of admission she showed emotional depression, she cried a great deal and was quite agitated. Self-accusatory delusions were present and she had the delusion of the unpardonable sin. The sensorium was clear, orientation was complete and the memory not impaired. There was much diminution in interests outside of herself. She was careless in her personal appearance, did not eat or sleep well. She was very apprehensive and fearful. Physical and neurologic examinations were essentially negative, urinalysis was negative, blood Wasserman was negative. She was given routine hospital care and between June 7, 1938, and October 3, 1938, she received 19 doses of 10,000 I.U. each of estrogenic hormone. There was some gain in weight and a general physical improvement but there was very little change mentally. Efforts at the establishment of rapport were of no avail due to the preoccupation and the intense degree of agitation. On October 3, 1938, metrazol therapy was started; the patient received 3 c.c. of a 10 per cent solution and had a major convulsion. On October 13, 1938, there was noted quite a little change for the better in the patient's general attitude and mental reactions. She was able to smile a little and showed some interest in the environment. November 15, 1938, there had been further improvement, physical and mental. At night, however, she occasionally exhibited somnambulism, and now and then would get out of bed and urinate on the floor, apparently having no memory of the occurrence. November 18, 1938, the patient completed 21 metrazol reactions and treatment was terminated. December 14, 1938, the patient was considered to have improved to the extent of at least a clinical remission. The delusions had disappeared entirely as well as the emotional depression and the agitation and apprehension. At this time she stated that she realized that the depression and false ideas were abnormal manifestations and volunteered the statement that she felt better physically and mentally than she had at any time in several months. She was allowed to go home with her husband on this date for a trial visit. There have been two reports on her condition since going home and she reported back at the hospital herself on January 10, 1939, for a check-up as to her condition. All information obtainable would seem to indicate that she has resumed a normal home life and is able to carry on quite as well as she had previous to the illness.

Case No. 2—hospital case record No. 802, Dora G., age 53, married and a housewife. This patient was admitted on August 5, 1938, as a private patient. The family history is negative except for the son of a half-sister who was a patient in this hospital with the diagnosis of dementia praecox. She had a common school education, married at the age of 19, the marital life was reasonably happy until the onset of the present illness. The menses ceased approximately two years ago and reappeared once during the year preceding admission. The present illness apparently began about one year previous to admission when she developed the idea that the family was poverty stricken and that their financial affairs were in a "mess". She thought that they were so much in debt that they would never be able to pay off their obligations (this was not true at all). There was loss of weight, loss of appetite, loss of interest in the environment; she was agitated and depressed, and while the patient was non-communicative, it was apparent that self-accusatory ideas were present. She was apprehensive and ill at ease, the sensorium was clear, orientation complete and the memory not impaired. At the time of admission she weighed 81 pounds, temperature, pulse and respiration were normal, physical and neurologic examinations were negative except for a marked degree of malnutrition. Blood Wasserman was negative, urinalysis was entirely negative. Mentally there was a marked degree of emotional depression with agitation and ideas of hopelessness and incurability. She insisted that she knew that there was no earthly hope of her ever feeling any better. She was given estrogenic hormone, 10,000 I.U. every five days until September 16, 1938. In addition to this she was given insulin, units 10, before each meal in an attempt to stimulate appetite. On September 14, 1938, there had been a gain of five pounds in weight. However she was very diffident about eating, there was no interest in the environment and she was agitated and depressed. September 16, 1938, she was placed on metrazol therapy. October 30, 1938, she had completed 17 major convulsions. There was a great deal of improvement both mentally and physically. She was able to smile, voluntarily helped with the ward work, showed interest in the people about her, and there was considerably more show of spontaneous energy. The ideas of hopelessness and incurability were absent, the agitation had disappeared and no delusional trends could be elicited. It was recommended to her relatives that they take her home and have her resume her housekeeping duties as if nothing had occurred. Accordingly, she was released on October 30, 1938, to her husband and daughters. She has been back for check-up several times and there is no evidence of any return of her previous illness. The relatives report that she is apparently as alert mentally as at any time during her life, is able to manage her own home and does most of her own work. There has been a marked gain in weight although not to the extent of obesity, appetite is good, she sleeps well and has resumed her social contacts and has taken part in the community activities in the same manner that she did previous to her illness.

SUMMARY

It is difficult to refrain from over-enthusiasm when results are so rapid and dramatic. It is

hoped that no conclusions will be drawn from the cases reported, but that a larger mass of data may be gathered from which some sort of accurate evaluation of the worth of this treatment may be made. The writer's experience with involutional psychoses has been far from gratifying previous to the above reported cases. Estrogenic hormone therapy has been of considerable value in ameliorating symptoms but has not shown the same brilliant results reported by Werner and his associates, even when used in large doses and over a considerable period of time. A large number of the patients coming to a mental hospital with this form of mental disease are not accessible for even the more elementary forms of psychotherapy. The death rate is high and suicide is common. The spontaneous recovery rate of 50 per cent mentioned by some is considerably higher than has occurred in the cases which have come under my observation. The period of total disability in the cases which do recover is a matter of months and quite often years.

15 Broad St.

Biopsy of the Uterine Cervix

In the state of our present knowledge the best results in the management of carcinoma of the cervix must come from early diagnosis and early treatment.

The Schiller test and the colposcope are useful methods in pointing out the area from which a biopsy must be taken.

The diagnosis of carcinoma of the cervix can only be established with the microscope.

A biopsy specimen may be taken satisfactorily in ambulatory patients with a sharp knife or the electrically charged wire loop of the high-frequency apparatus. If the former is used, the base of the incised area must be cauterized in order to seal the lymphatics. Usually no anesthesia is required.

Only a biopsy and histological study will settle the diagnosis between severe cervicitis and early carcinoma.

When cancer is not present, removal of the tissue under irritation for a biopsy specimen causes the cervix to heal.

In a series of 100 consecutive biopsies in severely irritated crevices, primary carcinoma was reported in 10 per cent.

All patients with early cancer of the cervix were treated by means of radium and high-voltage X-rays. In all, the cervices are healed, and the patients are under observation at the present time.—Louis E. Phaneuf, M.D., and Maurice O. Belson, M.D., Boston; New Eng. Jr. of Med., Vol. 220, No. 21, May, 1939.

The Injured Neurotic

Dr. Wm. S. Sadler in his *Theory and Practice of Psychiatry* (Page 674) states that the malingerer or simulator of disease may be detected as follows:

1. The malingering onset is sudden. In the true neurosis and psychosis there is always a prodromal period of insomnia, malaise, irritability and restlessness.
2. Symptoms are exaggerated and overacted if long continued.
3. The malingerer's symptoms are inconsistent with any type of neurosis or psychosis.
4. Symptoms are produced to order—rapidly changed from day to day.
5. When the malingerer thinks he is unobserved, the symptoms are not maintained.
6. All constitutional signs of ill health are absent.
7. Very seldom does he refuse food.
8. Insomnia cannot be maintained.

Psychoneurosis is an involuntary retreat from an intolerable situation with the victim living in a world of reality and is a disorder of the unconscious mind. The neurotic fears getting well because his disability masks his inadequacy. He does get pleasure in telling his symptoms at length and having someone listen to him and sympathize with him. He will have more or less definite persistent symptoms whether he believes he is being observed or thinks he is alone. Psychoneurosis is hypostatized by fear. Fear normally prepares the animal for flight or if he is cornered, for fight, through stimulation of the suprarenal gland with an abundant pouring of adrenalin into his blood stream. It is on this mechanism that concrete laboratory differentiation can be based. Prolonged fear exhausts the suprarenal and through the vegetative nervous system other ductless glands attempt to compensate. These are hyperactive at first but later exhausted. Hormone content of blood becomes deficient.

Proving endocrine deficiency through laboratory work is a great help in differentiation. Laboratory findings in addition to the usual symptoms of differentiation banish much doubt. Since doubt on the part of the examiner keeps many on compensation, the additional cost is willingly paid by companies. One can be reasonably assured that the claimant with a normal endocrine balance is not desperately in need of financial help because of his disability. If he is a mild neurotic, putting him back to work will cure his neurosis. If he malingers, there has been one more victory for scientific medicine.—Whitman C. McConnell, M.D., St. Petersburg, Fla. Jr. Fla. State Med. Assn., Vol. XXV, No. 11, May, 1939.

Never ask me what I have said or what I have written, but if you will ask me what my present opinions are, I will tell you.—John Hunter.

Seventy Patients Treated With Insulin Shock Therapy At the Massillon State Hospital

MICHAEL T. PALEN, M.D.

DEMENTIA praecox, or schizophrenia as it is now called, is as baffling today as it was in biblical times. It is the most serious of the major psychoses. Its cost to the tax payer is incalculable. Schizophrenic patients occupy about one-fifth of all the hospital beds in the United States, reckoning in general hospital as well as in mental hospital beds[1]. It is no wonder, then, that the introduction of the insulin-shock therapy by Dr. Manfred Sakel[2] of Vienna, on November 3, 1933, met with such tremendous enthusiasm throughout the world. The "71 per cent of full remissions and 17 per cent social remissions in cases in which the psychosis had not been evident for more than six months" as presented in the original report of Dussik & Sakel[3] compared more than favorably with the spontaneous rate variously computed at from 20 to 40 per cent.

Insulin has been used in psychotic patients even since the year of its discovery. Its use, however, was limited to uncooperative and stuperous patients primarily to stimulate their appetite by inducing sensations of hunger. In some cases this practice resulted in spontaneous eating after two or three days treatment and in this way tube-feeding of the patient was avoided. For this, 20 to 30 units or less two or three times daily were used but careful attention was paid to avoid even the slightest degree of hypoglycemic shock since the latter was regarded as dangerous. Amelioration of symptoms in the psychosis was noticed in several cases that went into mild insulin shock, but, for some reason no further investigation along this line was made until about 1930. At this time Dr. Sakel of Vienna began using insulin to combat the withdrawal symptoms in cases of morphine addiction, believing them to be due to over-activity of the sympathetic nervous system. During the course of this work he made the observation in some schizoid addicts that they showed marked character changes following a few insulin reactions. This observation was immediately followed up by intentional production of repeated hypoglycemic shocks in schizophrenic cases. As a result a new treatment for this psychosis was discovered. Since then thousands of cases have been treated by his method.

CASE MATERIAL

Seventy patients ranging in age from 15 to 38 years have completed treatment at the Massillon State Hospital. The patients were unselected and taken for treatment without regard to the duration and the type of schizophrenia. All patients were given a complete physical examination before treatment was begun. Cases presenting any pulmonary, cardiac, or renal disorders were rejected. X-ray studies were made on all suspicious cases. In this series of cases treatment was not restricted strictly to schizophrenia. Our group also included two manic depressive of the depressed type and two cases of post partum psychosis. Because of the limited facilities the treatment was available to women only until October, 1938, when our "set up" was changed to include men patients also. Consequently 63 women and seven men who have completed the treatment are herein reported.

Submitted March 31, 1939.

The Author

● Dr. Palen, Massillon, Ohio, is a graduate of the University of Buffalo School of Medicine, 1935; assistant superintendent, Massillon State Hospital.

METHOD

We have used a modification of Sakel's method from the beginning. As a rule we start men on 40 and women on 30 units as the initial doses. Our daily increases are larger than usually employed but never more than 40 units. This, of course, is modified to suit individual cases as their shock level is approached. With this method we have shortened the period of treatment considerably. We give insulin once daily only. Regular insulin is used. Protamine zinc insulin is unsuitable for shock therapy as shown by Reese and Vander Veer[4]. The administrations of insulin in divided doses—as 20 to 30 units—at intervals until the patient falls into coma is a wasteful time-consuming practice. V. Pap[5] has shown that an individual can remain conscious after receiving 300 or more units in divided doses, whereas the same case falls into coma on one single injection of 120 units. Our technic has been modified to suit us—that is, to fit in with the daily routine of a large mental institution.

The treatments are given on an "open" ward, divided with hospital screens through the center. Men on one side and women on the other are treated simultaneously. The staff comprises one physician and four nurses. The patients are treated for five days a week for a period of from five to ten weeks. Breakfast is omitted on treatment days and insulin is given by intramuscular

injections at 6:00 a.m. The site of injection is changed daily. The initial doses and the daily increases were mentioned above. When the dose is found which produces a shock in about two and one-half hours that dose is the "shock" dose for that individual and is used, usually, until the treatment is completed. We found no correlation between any constitutional or psychic factors and the size of the "shock" dose. In our experience, a man weighing 190 pounds had a severe shock on 40 units while a female weighing 189 pounds remained fully conscious on 580 units.

Initial doses of more than 40 units are dangerous although Vander Veer and Reese[6] utilize an initial dose of 60 units on all cases regardless of weight, sex, or age. To illustrate:

"A young single male, age 22 years, was admitted to the Massillon State Hospital on October 28, 1938, and diagnosed as a dementia praecox. His physical condition was good but mentally he was depressed, suspicious, and resentful. He had two years of high school but he quit 'because he was not getting anywhere and could not get interested in studies'. Since he quit school he became shiftless and, although he has had several jobs he lasted only a few months at each. He liked to walk a lot. Recently he became unmanageable at home and argued with his parents. At times he was surly, sarcastic, and somewhat antagonistic, if not actively delusional concerning them. He complained that he could not sleep and that his body was extremely 'acid' for which he took large doses of alkalies each day for a period of years. The parents stated that the boy has been nervous for the past 15 years but got along fairly well until September, 1938. They insisted that he be tried on insulin treatments which we tried to discourage because of the length and duration of his illness. Finally, however, we put the patient on insulin and gave him 40 units for the first dose. Within one hour the patient became somnolent and started to perspire. About 20 minutes later he went into "shock". Suddenly he became very cyanotic and his pulse became very rapid and weak. This complication was regarded as a circulatory failure and collapse and the patient was given 40 gms. of 50 per cent glucose solution intravenously. He awakened within two minutes and his pulse improved in quality. Ten minutes after his arousal the patient experienced a severe epileptiform convulsion which was followed by three more seizures within 40 minutes. Food could not be retained and the patient vomited after each attempt of feeding. An ampule of coramine plus seven and one-half grains of caffeine sodium benzoate were given hyperdermically; 1000 cc's of 5 per cent glucose in saline was given intravenously. The patient remained in a critical condition for five hours after which he rallied. There was a slight rise of temperature to 100.2° following the last convulsion and a return to normal within six hours. After two days of rest the patient was again tried on insulin at which time 30 units was given. Pallor and cyanosis were noticed within 30 minutes. The patient again experienced two severe convulsions about ten minutes apart. The insulin was immediately neutralized with 40 gms. of 50 per cent glucose solution by vein. Feeding, as before, was followed by vomiting. 500 cc's of 5 per cent glucose by vein was given and seven and one-half grains of CSB by hypodermic. The recovery from this was otherwise uneventful. After two days of rest a third attempt was made using 20 units of insulin. The patient again had a severe reaction with pallor, cyanosis, weak pulse, etc. Again treatment was interrupted, and finally, further attempts were discontinued. No explanation other than extreme sensitiveness to insulin could be offered."

As treatments progress we find it necessary to reduce the shock dose in about 20 per cent of our cases. One of our cases was reduced from 140 to 40 units and went into coma each day. Most cases, however, stay on a constant dosage throughout the course of treatment.

We use a "four hour" treatment schedule designed to meet all requirements of insulin shock therapy and yet fit in with the routine of a busy, overcrowded institution. Insulin injections are so graduated in dosage that each patient goes into coma within two and one-half hours. This allows about one and one-half hours in shock. All shocks are terminated at 10:00 a.m. and all patients eat their meals at 10:30 a.m. This system allows the physician time to complete his morning rounds and to attend to other patients not on shock therapy.

Termination of shock is accomplished by the nasal tube or by intravenous injection of glucose. For the nasal tube method we use a sweetened warm tea and give the patient at least one gram of sugar for each unit of insulin. Patients not in shock are given sweetened orange juice with the same proportion of sugar as in our tea. The tea and orange juice each contain 100 grams of sugar to a glass of the liquid. A patient in shock on 150 units of insulin receives a glass and a half of sweetened tea which contains 150 grams of sugar. A patient not in shock but who received 150 units of insulin is given a glass and a half of sweetened orange juice. The tea is given fairly hot and the orange juice cold. We utilize the nasal tube method on all cases of shock except where it proves ineffective. In such cases, and in cases suddenly developing complications while in shock, intravenous 50 per cent glucose is given. Usually 20 cc's of 50 per cent glucose by vein will arouse a patient in shock in one or two minutes. Sweetened orange juice must be given at once by mouth since the small amount of glucose given by vein neutralizes the insulin for only a short time—in most instances, depending on the amount of insulin, for ten to fifteen minutes or less. All patients as soon as they are awake are washed and changed into a dry clean gown, a bathrobe, and slippers and are taken to the dining room which adjoins our treatment ward. A warm meal, rich in carbohydrates, is served. It is necessary occasionally to spoon feed a patient at the table. Most patients on this treatment have a good appetite and gain from 15 to 20 pounds. Improvement is usually noticed after 10 shocks but 30 to 35 are necssary in the average case

to complete the treatment. Our practice has been to discontinue shock therapy in any case not showing some improvement after 15 shocks.

COMPLICATIONS AND DANGERS

(a) **Difficult arousal.** This is a very disturbing complication and in our series of 70 cases it occurred six times, twice in one of the patients. Whenever a patient fails to awaken in 10 minutes following an intravenous glucose administration this dreaded complication is usually encountered. There is usually hypermotility and motor restlessness. The patient "mills around" in bed and fights off restraint. The pupils are dilated, the eyes starry and glassy, and the facial expression fixed and determined. The patient may groan or make unintelligible sounds. Three to four people are usually necessary to keep such a person in bed. For this condition our treatment is as follows: The patient is immediately given enough sugar intravenously to fully counteract the insulin dose. He is then put in restraint and five grains of sodium luminal is given, preferably intramuscularly. Cold packs are applied to the forehead. On occasion a second injection of five grains of sodium luminal is given within one hour if necessary. This was necessary in two of our cases. The patients usually regained consciousness and quieted down within one and one-half hours. A temperature rise of 100 to 102 is not uncommon three to four hours following such an incident. The temperature drops to normal eight to ten hours later and the patient remains off treatment for two days. In our experience unnoticed sensitiveness to insulin or a prolongation of the treatment for longer than three hours were found responsible for difficult arousals. Observing these two points more closely we have not experienced any more complications in the last 46 patients treated. Freudenberg's[7] recommendation of the intravenous use of vitamins B-1 and B-2 in cases of difficult arousal has not as yet been tried by us.

(b) **Status Epilepticus:** Although not common this is the most dangerous of all complications in insulin therapy. It may develop immediately after a tube-feeding or an intravenous glucose attempt to terminate shock. We encountered it twice early in our experience with insulin therapy. Both cases were treated in identically the same manner. As soon as the complication was noticed the patient was given sodium luminal five grains intramuscularly. Both of our cases had extremely severe seizures during which the pulse was rapid, weak, and irregular, and cyanosis most marked. To preserve the patients energy and to abort the convulsion we anesthetized them with ether by the drop method. Spinal punctures were made and the fluid was examined but except for a slight rise in spinal fluid pressure which was not measured with a manometer this procedure did not reveal anything important. One of these patients remained unconscious for four days during which time he was fed liquids through a permanent nasal tube. The other case regained consciousness after 32 hours. Although there were no more major seizures following the ether narcosis, myoclonic twitches of the extremities and facial muscles continued off and on until consciousness was regained. Both cases ran a fever of 101° to 102° during the attack. Insulin was discontinued for one week after which time however they resumed treatments on reduced doses and completed their series without further trouble. Failure to recognize developing insulin sensitivity in these two patients was responsible for these two mishaps.

(c) **Aftershock:** An inadequate intake of a carbohydrate may cause a patient to go into another shock later in the day or during the night. We have experienced many "aftershocks" in our group especially in the late afternoons. Orange juice or food will abort these recurrences if given early. Our patients are checked every hour of the day for this possibility. We have had only five such "aftershocks" following the evening meal. The danger really lies in the fact that coma may be mistaken for ordinary sleep and allowed to continue too long. Careful and alert nursing with a good understanding of the signs and symptoms of early hypoglycemia helps to avoid most of these complications resulting from an inadequate carbohydrate intake.

(d) **Insulin Sensitivity:** This is another common danger. It occurs early in the treatment and necessitates a gradual reduction of the shock dose until the patient goes into shock in the third hour following the injection instead of the second hour. About 20 per cent of our cases develop this sensitivity and need to have their dose gradually reduced. Failure to notice this early may result in a difficult arousal, a status epilepticus and, as a consequence, a possible fatal termination.

There are many other complications not nearly as serious as those mentioned above but all of which are important. These are: vomiting during treatment, spasm of the glottis, hyperpnoea, difficult respirations, circulatory failure, cyanosis, convulsions, aspirations of saliva, tachycardia over 140, etc. When any of these are encountered the patient must be watched closely and constantly and the treatment terminated if necessary.

RESULTS

In spite of the severity of this treatment we have had no fatalities. Generally speaking our results compare favorably in some respects with those published by John R. Ross[8] in a statistical review of 1,356 cases treated in the New York Civil State Hospitals. Dr. Ross reports 42.6 per cent paroles as compared to our 50 per cent but 38.9 per cent "failures" as compared to our 25.7

per cent. We are unable to find the average number of shocks given per patient in the large New York State series, but ours was 30.8. The average age of our patients was 24.2 years. Sixty-three women and seven men have completed this treatment. The complete results of our 70 cases are tabulated in the two tables below.

TABLE 1.

Patients in Massillon State Hospital Who Have Received Insulin Classified According to Duration of Illness before Treatment and Outcome of Treatment.

Duration of Illness before Treatment	Number						Per cent					
	Total	Recovered	Much Improved	Improved	Unimproved	Paroled	Total	Recovered	Much Improved	Improved	Unimproved	Paroled
Less than 6 mos.	7	3	3	1	0	5	100	42.8	42.8	14.2	0	71.4
6 to 12 mos.	15	7	4	2	2	10	100	46.6	26.6	13.3	13.3	66.6
1 year	15	5	6	3	1	9	100	33.3	40.0	20.0	6.6	60.0
2 years	6	2	2	0	2	4	100	33.3	33.3	0	33.3	66.6
3 years	6	2	1	0	3	3	100	33.3	16.6	0	50.0	50.0
4 years	3	1	0	1	1	2	100	33.3	0	33.3	33.3	66.6
5 years	2	0	0	0	2	0	100	0	0	0	100	0
6 years	16	1	2	6	*7	2	100	6.2	12.5	37.5	43.2	12.5
Total	70	21	18	13	18	35	100	30	25.7	18.5	25.7	50

*F.B., female, age 30, died from pulmonary tuberculosis 13 months after treatment.

In the above table it may be noted that 37 patients were ill less than two years and that from this group 24 were paroled. This represents 64.8 per cent of good remissions. This, too, compares very favorably with the results of most investigators reporting large series.

TABLE 2.

Patients from the Massillon State Hospital Who Have Received Insulin and Have Been Paroled Classified as to the Length of Time of Their Parole.

Duration of Illness before Treatment	No. under Treatment	Paroled		Duration of Parole						
		Total	Per Cent	Under 6 months	7 months	8 months	9 months	10 months	11 months	One year or over
Less than 6 mos.	7	5	71.4	4	1	0	0	0	0	0
6 to 12 mos.	15	10	66.6	5	1	1	1	1	0	1
1 year	15	9	60.0	2	2	1	0	2	0	2
2 years	6	4	66.6	*3	0	0	0	1	0	0
3 years	6	3	50	1	**1	0	0	0	0	1
4 years	3	2	66.6	2	0	0	0	0	0	0
5 years	2	0	0	0	0	0	0	0	0	0
6 years or over	16	2	12.5	***1	0	0	1	0	0	0
Total	70	35	50.0	18	5	2	2	4	0	4

*M.F., female, age 25, relapsed after five months and returned to Massillon State Hospital. Had two previous admissions.

**J.T., female, age 22, relapsed after seven months and returned to Massillon State Hospital.

***H.S., female, age 28, relapsed after one month and returned to Massillon State Hospital. Had a previous admission five years ago.

The 35 patients paroled have thus far averaged 6.02 months each at home. Insulin treated cases have a remission which is much superior to the spontaneous kind especially with respect to insight. Insulin treatments have more than doubled the remissions which were usually between 10 and 20 per cent or less in State Hospitals.

CONCLUSIONS

1. Insulin shock therapy is definitely superior to any other treatment of schizophrenia.

2. From 60 to 70 per cent of good remissions can be obtained if cases are treated before one year of illness.

3. Catatonic types respond poorly to insulin and are treated best by metrazol. Paranoid and hebephrenic cases with hallucinations show the best response to insulin treatment.

4. Some chronic cases will respond to treatment especially if they previously had spontaneous remissions. In a majority of them, however, little or no benefit is derived.

5. The mortality rate for insulin therapy is about 1.4 per cent. By careful selection of patients to eliminate bad risks and by regulation of dosage this number can be further reduced.

6. Insulin therapy was also effective in other psychosis as in post-partum, and in manic depressive psychosis. Two of each of these types were treated and one of each recovered.

SUMMARY

Seventy patients were treated with insulin and 35 of them or 50 per cent were paroled. Three of the paroled patients relapsed, leaving a total of 32 still on parole. One patient who did not improve after insulin treatment died 13 months later from pulmonary tuberculosis. On the whole we are very enthusiastic about this new treatment but we feel that the true value of this therapy will not be known until more time has elapsed and more patients are treated.

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I wish to express my sincere gratitude to Dr. John Ross for his kind permission to allow me to reproduce the forms used in tables 1 and 2.

Psychosomatic Considerations In Peptic Ulcer

DWIGHT M. PALMER, M.D.

PEPTIC ulcer continues to be one of the common medical and surgical problems. The majority of workers agree that it is probably increasing in incidence. At any rate more cases are being diagnosed than in former years.

The question of the etiology of peptic ulcer has been a matter of much investigation and a very large literature is available on the subject. Many factors have been advanced as causative. The number of these theories is perhaps a good indication of the obscurity of the essential background in this condition. It appears worth while to stress the concept of "considering and treating the patient as a whole" in the management of these cases.

The Author

● Dr. Palmer, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1932; member American Association of Anatomists; Columbus Neuro-Psychiatric Society; consultant in neuro-psychiatry to University and St. Francis Hospitals; assistant professor of anatomy; instructor in medicine (neuro-psychiatry) at Ohio State University.

THE PSYCHOSOMATIC OR TOTALITY CONCEPT IN MEDICINE

A. The Concept. The totality concept looks upon all aspects of the individual—mind, nervous system, muscles and glands as inseparable parts of a total personality, the man. The reactions between the various elements in the personality and the environment have been classified by Jelliffe as reversible and irreversible. The reversible reactions are those which are usually classified as "functional" while the irreversible ones are those ordinarily referred to as "organic." Thus if a smooth muscle cell contracts, the process is reversible for contraction is followed by relaxation. However if the muscle cell dies, the process is irreversible. The structure disappears and its function is lost both in terms of a working unit in itself and also as a unit of the total personality. The psychosomatic concept considers the individual as a structure that functions by the integrations of its various aspects with each other and with the environment.

With such a concept, disease as a phenomenon is not to be considered solely as an outside invader but is to be interpreted as a reaction between the individual and his environment. The idea may be expressed in "There is a patient who has the disease as well as a disease that has the patient."

The total or personality concept in Medicine is not new, in fact it is as old as Medicine itself. However the idea is very often misconstrued or discounted. There appear to be several factors responsible for this state of affairs.

B. Factors that Retard the Acceptance of the Concept.

1. Medicine is in a laboratory phase of development. Physicians are trained to ask for and to evaluate facts on a chemical, physical or mathematical basis.

2. Biological scientists have been trained to recognize and diagnose disease phenomena as either "organic" or "functional." Most physicians will agree, and can from personal experience even support the impression that psychic factors will cause variations in gastro-intestinal function. But a great number do not believe that psychic activity can result in a peptic ulcer because they term the latter an "organic" lesion.

3. Human intelligence is in the process of evolution. The complicated patterns that are used in "conscious" action are underlaid by an enormous number of simpler patterns of adjustment. The latter are no longer used as they once were in the less complex adjustments of the past. But these basic patterns are still present and now act at "unconscious" levels as a dynamic force in human behavior. Jelliffe states that "As from minute to minute is to a billion years so are our conscious reasons for doing things to the 'unconscious' processes that really bring them about." The "doing things" refers to visceral behavior as well as to the somatic behavior of striated muscles. It is this great background of neural integration that activates much of human behavior. But because it operates at an unconscious and "illogical" level, its presence and importance are difficult to evaluate. This is especially true for the observer who is not trained in the science of psychosomatic medicine.

4. It should be recognized that neuropsychiatry is a relatively young science and that even the best workers in the field acknowledge the present day limits of their knowledge.

C. Background of the Concept. There are certain fundamental considerations that underlie the psychosomatic concept:

1. Structure and function cannot be separated. The neurones that form nuclei and tracts in the

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cerebral cortex, the internal capsule, the thalamus, the hypothalamus, the medulla, the vagus and splanchnic nerves, and the smooth muscle and gland cells of the stomach are parts of an anatomical mechanism. But in the living person they are also parts of a physiological mechanism. Cushing found that lesions in the diencephalon or along the descending autonomic pathways in the midbrain and medulla may be associated with gastro-intestinal ulceration. This is an example of the concomitance of physiological dysfunction with structural change. The higher levels of integration of these neural arcs involve the cerebral cortex, the thalamus and the hypothalamus. Physiological activity of these arcs is associated both with conscious, intelligent thinking and with thinking and behavior which are colored by the emotions. These anatomical structures (neurones, muscle cells and gland cells) should not be divorced from the physiological activity that characterizes them in the living state.

2. There is only one nervous system. This statement is contrary to much in current teaching. There has been a tendency to subdivide the nervous system into either two or three systems, most commonly into the autonomic nervous system, the somatic nervous system and the psychic nervous system. Thus one statement is that the autonomic nervous system supplies the stomach, another that the vagus nerve supplies the stomach. The psychic level is often treated as if it were a separate and distinct entity. The student is taught the structure and function of the stomach and "its nerves" but he is not told enough about the stomach as a tool or effector mechanism of the total man taken as an individual personality.

3. The "longitudinal viewpoint" is important. The neuropsychiatrist attempts to look upon every personality from the longitudinal viewpoint. This involves viewing the patient in terms of his adjustments and maladjustments to various situations throughout his lifetime. It attempts to discover the trends in the life picture and to interpret the present status in terms of these trends.

4. Importance of recognition of the fact that a relationship between the present status of the individual (present illness) and "mental factors" may not be "logical." One of the chief sources of the failure to accept the psychosomatic view in medicine is the statement that the conclusions drawn about the psychosomatic mechanisms in any particular case by neuropsychiatrists are "illogical." This is due to the fact that the critic is analyzing the case from the intelligent viewpoint of consciousness. When such a measuring stick is used, all psychological mechanisms that involve the unconscious field will fail to appear as sensible.

However as Alexander points out there is also a logic of the emotions. It is the primitive logic of the unconscious level of integration and of the conscious level of the very young child. The thinking of the latter is very illogical if it is measured by adult standards. If, however, the child's thinking is evaluated on the basis of his degree of development and by the primitive logic of the emotions it is sensible.

A second important point in this connection is that the emotional patterns which express aggression, guilt and preservation tendencies are older both in terms of phylogeny of the race and also in the terms of the development of the individual. These older patterns are asocial in nature. The newer logical ones are social.

There is a conflict between these two sets of reaction patterns. Men are still animals and the child has to be socialized. The basis of mental health is the adjustments between the primitive, illogical, asocial tendencies of the "unconscious" on the one hand and the newer, logical, social patterns of behavior on the other.

When a man is able to adjust and integrate these conflicts, he is well along the road to both "physical" and "mental" health since as stated above this view looks upon disease as both a function of the environment and the personality.

Proper mental adjustment leads to a sense of security. Lack of such integration leads to insecurity which is the basis of aggression and of worry. The increase in one tendency calls for a compensatory increase at the opposite pole; and this secondary reaction is often overdone so that there is overcompensation. Thus the insecure individual who feels a driving need for dependence may overtly express his independence, reliance, ability and efficiency.

APPLICATION OF THE PSYCHOSOMATIC CONCEPT TO PEPTIC ULCER

In an analysis of the etiology of a case of peptic ulcer there are three sets of factors to be considered. These are (1) Hereditary Factors, (2) Dietary Factors, and (3) Psychosomatic Relationships.

1. Hereditary Factors. These factors probably play a greater role than is now recognized. A peptic ulcer physical type has been described as a tall, thin male with a face that is broader in its upper half, tending to taper sharply to a pointed chin. The palpebral fissure is said to be consistently wide. The ulcer patients are of normal weight or are underweight. The condition is more common among the energetic racial types, the incidence being low in American Negroes and in Orientals. Crile has termed peptic ulcer a wound stripe of civilization.

It is altogether possible that certain individuals have a hereditary handicap in respect to the chance of developing chronic peptic ulcer.

They must, therefore, lead somewhat sheltered, dependent lives. They should be taught to recognize that they have a physique which limits their behavior to a certain percentage of their aspirations which are usually excessively high.

2. Dietary Factors. It is well known that specific food stuffs disagree with certain individuals. The reasons for this incompatibility are much less clear. It is worth while to note that thousands of individuals eat anything they can get and the food is far from what is considered hygenic or even fit, yet they do not have peptic ulcer. The average stomach is remarkably competent.

Among the elements in diet that have been mentioned as causative factors in peptic ulcer are coarse foods, tobacco and alcohol. It would seem that these can not be the sole factors because of the large number of individuals who get as much or more of these substances than does the average ulcer case yet never develop ulcer. This pushes the selective factor either back into the hereditary background or into the psychosomatic element.

The factor of regularity of eating may be of importance. This will be discussed with the psychosomatic relationships.

3. Psychosomatic Relationships. The stomach functions as an effector (working) unit in the general body economy in two types of neural patterns:

a. As the effector or working unit (muscle cells that contract and gland cells that secrete) in the autonomic or vegetative reflex arcs. These are also known as partial behavior patterns (in this case visceral behavior) and include such phenomena as secretion of hydrochloric acid in response to the presence of food in the lumen. This is the reflex or least highly integrated level of neural integration.

b. As the effector or working unit in the total behavior patterns. The latter term refers to muscle contraction or gland secretion as a result of integration at the psychic, symbolic or most highly integrated level. Thus it is possible to have secretion of acid in the stomach as a result of mental processes and in the absence of food. The stomach may "water" as well as the mouth.

Symbolization, the highest neural function, characterizes the human nervous system. A symbol is a word, object, sound, etc., to which an idea or feeling has become associated so that the word or object has come to stand for (i.e., symbolize) the idea or feeling.

In the case of the stomach there are any number of possibilities for the formulation of symbols or as it may be called, psychic conditioning. Food taking is an essential function and a thrice a day occurrence. Any given foodstuff may be associated with either pain or pleasure in earliest infancy or at any other time during life. Hunger is an unpleasant sensation and satiation is usually one of extreme good feeling. Eating and drinking short of satiation are usually accompanied by a sense of well-being and security. Men will fight and commit asocial acts for food. An appetite itself is associated with a sense of well-being. Vomitus and gaseous eructations are generally regarded as nasty. The taking of food by the infant is usually associated with the mother. Thus the act to the infant symbolizes dependence and care but it also carries with it an erotic element in which love is dominant. If the baby is breast fed, the act of weaning constitutes the enforced beginning of an independence which is both physiological and psychological. These are but a few of the possibilities of symbolic formulations that involve the stomach.

Alexander has found that gastric symptoms often appear in individuals who psychologically show a strong wish for dependence, a wish to be taken care of and loved. As stated above, the infant receives care and love largely through his food intake. Normally after the period of adolescence these strongly receptive wishes are no longer overtly shown. However if the individual suffers disappointment and frustration in the establishment of adult attachments that involve dependence and its opposite, independence, he may revert to more infantile ways of expressing his desire for dependence, his strivings to be loved and taken care of. Since these infantile patterns involve food taking associations, there may follow an increase in gastric activity. This increased activity with stomach hypermotility and hyperacidity is to be understood in terms of the stomach acting as an effector or working unit in unconscious neural patterns. Hence, the increased activity is not associated with either conscious hunger or with actual food taking. The excess acid may not be neutralized in the stomach because the individual is so preoccupied with his conscious activities and attempts at a compensatory independence that he becomes irregular in his eating habits. Thus it may be that the soil is prepared for peptic ulcer formation.

PRACTICAL CONSIDERATIONS

First, it is of importance to give the patient an hour or more to tell his story. Often much more time than this is necessary to get even a slight idea of the total patient from the longitudinal viewpoint. From a purely practical point of view it is usually true that little of importance is related by the patient in the first half hour or so of the interview.

Second, avoid questioning, particularly direct questioning. There is little, if anything to be gained by asking a patient if he worries and this is particularly true of the gastric type with his exaggerated and overcompensating sense of in-

dependence and efficiency. It is even more of a waste of time to ask him why he worries. He does not know the answer to that question. If it is to be revealed, it will come about through a synthesis on the part of the physician of the revelations of the life story.

Third, as the story comes out look for the answers to the following questions:

a. What factors have become operative in the recent history that are acting to deviate the patient from his previous adjustments? In other words what has recently happened in the patient-environmental relationships that have disrupted or are threatening to disrupt the natural expression of the basic trends of the individual's life? This is important regardless of whether these trends appear desirable or undesirable to the physician.

b. What does the present illness (the ulcer) symbolize in the terms of the patient's life trends?

c. What are the present aggressive tendencies of the patient? Toward what or toward whom are his drives directed? Is he inwardly tense?

d. Whom does the patient hate? Whom does he love? From whom does he seek love? Are his hates and loves conflicting?

e. Has the patient any persistent sense of guilt which may be active in self-punitive mechanisms that are contributory to his illness?

Fourth, it should be recognized that the ulcer patient is a handicapped individual and that the therapy should involve a consideration of handicaps imposed by his hereditary background and his previous life trends. His ambitions and drives should be interpreted to him as overcompensations. He should be encouraged to follow a less ambitious program and to be content with functioning at a limited percentage of his high aims. A careful selection of diet, regularity in eating, the avoidance of alcohol and tobacco can be considered in the therapeutic regimen on the basis of shielding an inferior personality from the effects of the environment which are easily met by the average person.

Fifth, it is important to understand that the psychosomatic viewpoint embraces all of medicine, both internal medicine and surgery. It is not, as many believe, incompatible with the aims and practices of either branch. It is not a cure-all and it is not designed to replace the scientific applications of medical treatment in ulcer whether it be by alkalies, diet, histamine or gels, or the surgical treatment by resections, anastomoses, etc. If some neuropsychiatrists report cases which were definitely known to have ulcer and in whom the ulcer disappeared after psychotherapy, such case reports must be accepted but it does not prove that the psychotherapy cured the ulcer. The same criticism can be made of any medical treatment that is followed by disappearance of the ulcer. Only the surgeon who resects the ulcer has definite proof of his cure, but he does not guarantee that a new ulcer will not form. Also it cannot be denied that both the first and second ulcer may have been formed on a basis in which the psychosomatic relationships were an important factor.

Many neuropsychiatrists agree with the viewpoint of Moschcowitz that psychotherapy is largely of prophylactic value. In any event, the psychosomatic, longitudinal point of view appears to give a better interpretation of the genesis of the ulcer and of the program of treatment to be followed.

SUMMARY

The basis of the psychosomatic or totality concept and its application to the condition of peptic ulcer have been discussed. This viewpoint is longitudinal in its scope and seeks to evaluate all of the factors, both intrinsic and extrinsic, in the individual case. On the diagnostic side hereditary factors, dietary factors and psychosomatic relationships are of importance. On the therapeutic side the necessity of treating the patient as a whole is stressed.

150 E. Broad St.

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Never before in man's history has any people of such mingled races under one government, in such large numbers, so varied in economic and social qualities and opportunities, shared so generously in the application of the sciences of preventive medicine as have the 130,000,000 people of the United States in the year 1938.—Haven Emerson, M.D., New York City; N. Y. State Jr. of Med., Vol. 39, No. 10, May, 1939.

Clinical Evaluation of Serologic Reports

GEORGE W. BINKLEY, M.D.

IN the generation since the first complement fixation test for syphilis was devised[1], there has been a gradual change in the attitude of syphilologists regarding the importance and significance of serologic tests. This period has seen much progress in the technic of serologic testing, with the development of more and more sensitive procedures. Despite this technical progress, syphilologists today are recognizing more and more that neither the diagnosis nor treatment of syphilis can depend solely on the findings in the laboratory. Fifteen, ten, even five years ago, the blood test was regarded as a fairly reliable guide, and was depended upon, to a large extent, in the clinical management of patients with syphilis. If the patient had a positive serologic reaction, he had syphilis, and he was treated until the reaction was negative, and then he was cured. Time and experience have brought their disillusionments, and this handy, simple formula has had to be abandoned in the face of the discouraging fact that it can not be relied upon as a guide to therapy.

Many factors may influence the result of the serologic test and its interpretation in the individual case, and these increase the complexity of the problems encountered in the diagnosis and treatment of syphilis. In the first place, the fallibilities inherent in the technic itself, including paradoxical results, questions of specificity and sensitivity, and the lack of precision of qualitative reports, have their influence. Then there are certain factors characteristic of the course of the disease which affect serologic results, and these are subject to variation in different individuals. Lastly, chemotherapy has its effect on the demonstration of reagins in the blood, again with individual variations. The syphilologist must consider all these factors in interpreting the significance of the serologic test, which must be evaluated also in the light of the patient's history and the concomitant evidence furnished by the clinical findings.

TECHNICAL CONSIDERATIONS

Types of tests—Of the two types of serodiagnostic tests used to determine the presence or absence of syphilis reagins, the older complement fixation tests, typified by the Wassermann and the Kolmer, as usually performed, are less sensitive, though not less specific than the flocculation tests. Under the relatively ideal testing conditions of the evaluation study on serodiagnostic tests for syphilis, made by the United States Public Health Service[2], it was found that efficient complement fixation and efficient flocculation procedures are of equal value to the clinician.

Sensitivity of Tests—Because the sensitivity of the various serodiagnostic tests differs considerably, any mention of the serologic findings should state definitely the technic used. With the more sensitive flocculation procedures, the reaction may be positive much earlier in the course of syphilis. Rein[3] states: "With the Kline exclusion test, syphilis may be detected within two or three days after the appearance of the chancre", that is, about the fifteenth to twentieth day of the disease. "There is sufficient experimental evidence on hand to support the fact that certain flocculation tests may be made so sensitive (and still possess adequate specificity) that they will detect serologic syphilis before the clinical appearance of the chancre."

These facts must be taken into consideration in making the clinical evaluation. In the case of primary syphilis, a negative Kline exclusion test would, in most instances, indicate that the syphilis is of less than twenty days duration, whereas if a less sensitive complement fixation test were negative in primary syphilis, the duration of the disease might be as long as forty days.

Exclusion tests—Considerable confusion has arisen in the minds of practicing physicians over the term, "exclusion test". It has been suggested that a better term would be screen test, since its only proper function is the weeding out of negative serums. A recent editorial in *The Journal*

*From the Department of Dermatology and Syphiollogy, Medical Department, Western Reserve University School of Medicine, University Hospitals, Service of Drs. H. N. Cole and J. R. Driver.

The Author

● Dr. Binkley, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1930; member American Academy of Dermatology and Syphilology; Cleveland Dermatological Society; member of visiting staff of City and University Hospitals, Cleveland; instructor, dermatology and syphilology, and director, graduate course in venereal disease control, Western Reserve University School of Medicine; special consultant, United States Public Health Service.

of the American Medical Association[4] advocates that the "exclusion" test should not be reported at all unless it is negative, because a positive exclusion reaction has no practical significance in making a diagnosis of syphilis. "Certainly it was not the intention of their originators that these tests were to be used as diagnostic measures; yet reports as difficult to evaluate as 'exclusion test positive, diagnostic test doubtful', presented without explanation to the physician, invite the possibly mistaken diagnosis of syphilis."

Variations in the flocculation test—In addition to the variable sensitivity of serologic tests for syphilis, it must also be recognized that each of these procedures is subject to individual idiosyncrasies, in certain instances, which influence the reliability of the reports.

Even a negative exclusion report on the sensitive flocculation test can not be accepted as infallible evidence either of the absence of syphilis, or even of serum reagins. As has been pointed out recently in *The Journal of the American Medical Association*[4], "it is not necessarily true that a serum giving a negative Kline exclusion or Kahn presumptive result will be negative by every other technic used. In any extended series of tests, certain syphilitic serums are detected by an ordinarily less sensitive procedure. These paradoxic results are particularly common when both a flocculation and a complement fixation test are used. Finally, the flocculation phenomenon is peculiarly susceptible to zone reactions, i.e., false negative results caused by the presence of excessive quantities of reagin. A serum may be negative with any flocculation test, screen tests included, when tested as whole serum, yet the complement fixation test may be clearly positive and the flocculation procedure may be similarly positive if the serum is tested in 1:10 or 1:20 dilutions."

Technical variations—In addition to the variations in the different tests, and the possibility of errors inherent in the technic of the tests themselves, there is another factor, human fallibility, which can not be completely ignored as having a potential influence on the accuracy of serologic reports. Last year, an attempt was made to determine the relative importance of this factor, that is, the validity of the work of various technicians, here in Cleveland, by comparing the reports from thirteen different laboratories. Tests were made at all these laboratories on identical serums. In general, it was found that when the titre of reagins was high, the reports were quite consistently 4 plus, but in the serums with lower reagin titres, there was considerable discrepancy in the reports, sometimes ranging from negative to 4 plus.

This discrepancy is not alarming when it is considered in the light of quantitative findings, because then it is recognized that, compared to the whole possible range of reagins in the blood, this area in which variation may occur, represents an extremely small portion of the whole.

The titre of reagins—To illustrate this, let us assume the existence of an arbitrary scale in which the maximum titre of syphilis reagins is 800 units. By this standard of measurement, a patient with early, untreated syphilis ordinarily may produce 400 to 800 units of reagin. With the plus-sign method of reporting, any quantity of reagin, from 3 to 800 units, is 4 plus. (Figure 1). Thus the 1, 2 and 3 plus reports occupy less than 1 per cent of the total range of positivity possible, and are not of quantitative value.

Moore[5] has stated that "the difference between them (that is, the 1, 2 and 3 plus reports) is so insignificant that the same serum tested in duplicate on the same day, and by the same individual, may yield a negative, 1 plus, 2 plus, or 3 plus result, due solely to slight differences in the measurements of reagents."

This shows concretely the slight clinical value of serologic tests in terms of plus signs. Because physicians generally have not understood this, there has been a tendency to think of the progress of a patient with syphilis in terms of these plus signs, and to diagnose and treat syphilis on this basis. At present it is the aim of syphilologists to get away from this fallacy, and hence it is recommended that the plus signs should be dropped from serologic reports, and that the results, instead, should be recorded as negative, doubtful or positive.

Reporting of results—Recently, both the Ohio State and Cleveland City Hall serology laboratories have made a start in this direction, by changing their reports, so that the results are tabulated in the following manner: 4, 3 and 2 plus, positive;* 1 plus or plus-minus, doubtful; and minus, negative. In my opinion, the chief advantage in this method is that the physician will not be led into treating plus signs, and it should influence him to use the report as an aid in diagnosis, rather than as a definite guide.

Quantitative reports—The most complete information concerning syphilis reagins would be obtained from routine quantitative reports, such as are now used for typhoid fever. With a reduction in the case load of syphilis, which we all hope that time and more concentrated effort will bring about, this important change in reporting serologic tests should be possible. At any rate, it is a goal that should be kept in mind, in attempts to work out more accurate laboratory aids in the diagnosis and treatment of syphilis.

Specificity of serologic tests—Another fact

*This is not the recommendation of Moore[5] who would regard 1, 2 and 3 plus reactions as doubtful. Perhaps a middle ground or compromise would be to regard 3 and 4 plus as positive, and plus-minus, 1 and 2 plus as doubtful.

which must be kept in mind is that neither the complement-fixation nor the flocculation test is 100 per cent specific for syphilis reagins. This is demonstrated in the technic of the test itself, in which beef heart wax is substituted routinely for the true antigen, *treponema pallidum*. Strongly positive results are obtained in diseases other than syphilis, and the plus-minus and one-plus results occurring in some serums may be due to a high sensitivity of the test, rather than to the presence of syphilis reagins.

In active yaws, the complement fixation test with beef heart wax as antigen is strongly positive. In leprosy[6], 63 per cent of false positive results are obtained. In rat-bite fever and pinta which represent chronic spirochetoses, the incidence of false positive reactions also is high. In acute malaria, infectious mononucleosis, and possibly in lymphogranuloma venereum, false

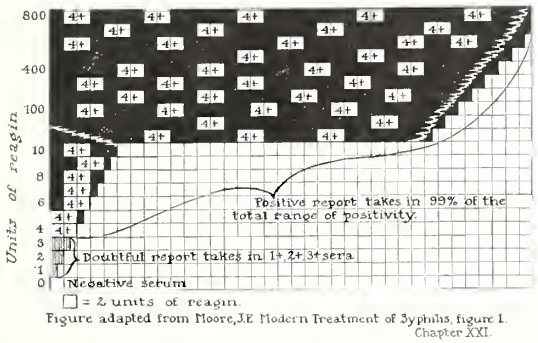


Figure adapted from Moore, J.E. Modern Treatment of Syphilis, figure 1. Chapter XXI.

Fig. 1. The quantitative significance of serodiagnostic reports.

positives are less frequent and transitory in nature. In tuberculosis, cancer, febrile diseases, and vaccination, the reaction may be positive to some degree in isolated cases[2]. Pregnancy has been listed by some authorities as another cause of false positive reactions, but it has been found, when the serologic test is performed by experienced personnel, that there are few or no false positive reports on serums from normal pregnant women.

Fortunately in our northern climate it rarely is necessary to consider yaws, leprosy, or malaria, in differential diagnosis, but rat-bite fever and relapsing fever, although of rare occurrence, may present a problem at times. Before labeling a case definitely as syphilis, infectious mononucleosis, vaccination, and lymphogranuloma venereum should be ruled out.

Malaria—Hazen[7] and his coworkers in a survey sponsored by the United States Public Health Service recently have confirmed the fact, about which there had previously been uncertainty, that active malaria may sometimes produce falsely positive serologic reactions. This was suspected, from a tendency noted by various observers toward an undue proportion of positive tests among patients with acute malaria. Two hundred and sixty-six white inhabitants of South Carolina and Georgia, who gave no history and showed no clinical evidence of syphilis, but had infections with malaria plasmodia, were studied. The criteria used to ascertain the presence of malaria were not stated in the report, but presumably the diagnosis was based on the demonstration of plasmodia in blood smears.

Serologic tests were made by the Kline, Hinton and Kolmer methods. The most sensitive test, the Kline exclusion, yielded 16.2 per cent positive reactions; the Kline diagnostic, 6.2 per cent; the Hinton, 4.4 per cent; and the Kolmer, 4.9 per cent.

In evaluating the significance of these findings, one might raise the question whether a certain number could have had syphilis reagins due to a latent or asymptomatic syphilis. To make some estimate of the number who might be actually syphilitic, it would perhaps have been enlightening to determine the incidence of latent syphilis in the white non-malarial population in the same districts. The authors presented no data on this point, but commented as follows: "It seems safe to assume that malaria, like leprosy, can be the cause of positive serologic reactions to tests for syphilis. It is probable that more than one patient has been placed under treatment for syphilis when malaria was the cause of his positive serologic reaction."

Infectious mononucleosis—In a group of thirty-seven cases of infectious mononucleosis in which serologic tests for syphilis were performed, Bernstein[8] found six instances in which the usual complement-fixation test, the Eagle flocculation test, or both, became temporarily positive. This group of cases is too small to permit of any statistical generalization, but it does demonstrate that false positive reactions in infectious mononucleosis are too numerous to be ignored. This possibility should be kept in mind in cases in which the suspicion of syphilis is based almost solely on the results of the blood test.

PHYSIOLOGIC AND PATHOLOGIC FACTORS

Syphilitic reaginemia in the newborn—It has been shown repeatedly that seropositive mothers with late non-infectious syphilis, or earlier syphilis adequately treated throughout pregnancy, may give birth to infants with positive serologic reactions[9]. These infants may not have any syphilitic infection, but are rather the passive carriers of reagins from the mother's blood stream. In such cases, the child's blood becomes negative within one to three months, without chemotherapy. Children born of mothers who are seropositive due to congenital syphilis are invariably the victims of reaginemia. Such infants should not be diagnosed as being carriers of the

treponema pallidum on the basis of positive serologic tests made soon after birth.

Seronegativity in the course of syphilis—In the course of syphilis, there are commonly two periods of seronegativity. During the first four or five weeks of the disease, serodiagnostic tests are negative, because it takes time for the host to form serum reagins. This seronegative phase may last as long as three months. In the three decades since the application of the Bordet-Gengou complement-fixation phenomenon as an aid in the diagnosis of syphilis, syphilologists limited the use of the term seronegative to primary syphilis, and a patient with a negative Wassermann reaction in early syphilis was rewarded by receiving less chemotherapy than a similar patient with a positive Wassermann reaction.

Seronegativity may be present not only in the first twenty to forty days of the disease, but in syphilis of any duration. For example, in some cases of late untreated syphilis, the diagnosis may be made on the history and clinical findings alone. Positive tests of the spinal fluid are helpful in making the diagnosis in some patients who have negative serum reactions.

It is obvious then that the term seronegative is correctly applied to all cases of syphilis in which active manifestations of the disease are found and serodiagnostic tests are negative, and should not be restricted to cases of early syphilis.

In late syphilis, spontaneous seronegativity may occur without regard to previous chemotherapy. Bruusgaard[10] demonstrated, in his study of untreated syphilis, that almost 30 per cent of such cases became Wassermann-negative in time.

Chargin and Rosenthal[11] found that the behavior of the Wassermann test in latent syphilis is totally unpredictable, or paradoxical, in a majority of instances. In their study, the serologic tests were done in a single laboratory, by a constant technic, and by the same technician. In 500 patients with latent syphilis, they found that in 10 per cent, the complement fixation became negative and remained so; in 23 per cent, it remained persistently positive; and that in 67 per cent, it exhibited a paradoxical behavior, that is, the complement-fixation tests fluctuated while the patients were under treatment from various grades of positive to negative, or the reverse, without apparent relation to the quantity and frequency of treatment, or rest periods. They concluded, because of the unpredictable nature of the reaction, that the complement fixation test in latent syphilis is an unreliable guide to therapy.

The results of these two studies, by Bruusgaard, and by Chargin and Rosenthal, might appear to be more discrepant than they are, but actually they were made on different types of case material and can not fairly be compared. Bruusgaard reported the outcome in 473 patients who had had a diagnosis of early syphilis three to forty years previously, and had had no treatment. Chargin and Rosenthal's study was restricted to a group of patients with late latent syphilis selected many years after the onset of the disease on the basis of positive serologic reactions alone, who had received chemotherapy. In addition, Bruusgaard's report presumably was made on the basis of one serologic test on each patient, so that a considerable proportion of the 30 per cent reported as negative might have been tested in a negative phase, and repeated testing might have placed some of them in what Chargin and Rosenthal call the paradoxical group. Furthermore, Bruusgaard's study was made more than ten years ago, and hence it is entirely likely that technically the test used was less sensitive than that employed in the more recent study of the other authors.

EFFECT OF CHEMOTHERAPY

In a patient with early syphilis, a course of ten injections each of arsenical preparation and of bismuth, usually suffices to prevent the continued formation of syphilis reagins in the blood. Regular continuous chemotherapy reverses the serologic reaction, within a few months, in the majority of cases of early syphilis. Furthermore, it is well known that a severe exfoliative dermatitis resulting from arsphenamine therapy often produces complete and lasting seronegativity. Despite this, it has been demonstrated repeatedly by relapses that these patients with negative serums continue to harbor the *treponema pallidum*. When a clinical relapse occurs, the reaction of the serum becomes positive.

There is now no doubt that, when treatment was guided by blood test results, and that was true ten or even five years ago, many physicians administered relatively few treatments to patients with early syphilis. In some instances, as few as six to twenty injections were given, and at the first reversal in complement-fixation, the patient was patted on the back, reassuringly told that his syphilis was cured, and discharged for all time. The sad results of this type of treatment, guided by the findings of serologic tests, have been demonstrated repeatedly in our clinics and furnish one of the causes of our present tremendous case load of late syphilis. Some of those patients entered other clinics or came to other physicians with symptoms of early relapse. Others missed infectious relapse, but years later developed serious complications of late syphilis. The syphilis of tomorrow is the ineffectively treated syphilis of today.

SEROLOGIC TESTS IN DIAGNOSIS

The diagnosis of syphilis may be made with irrefutable evidence from any one of three sources; History, clinical findings, and serologic

study. In some cases, of course, the history, clinical findings, and serologic tests all yield positive evidence of the disease. Other diagnoses rest on a combination of any two of these factors. In the preponderant proportion of our present case load, that is, in late latent syphilis, the serologic finding is the only positive evidence of a previous infection with *treponema pallidum*.

There is a small group of cases in which no historical or clinical evidence of syphilis can be elicited, yet the patients yield weak serologic reactions repeatedly. In these cases of consistently plus-minus and 1 plus reactions to the complement-fixation or flocculation tests, a first diagnosis of syphilis should never be made. On the other hand, there are patients who display clinical evidence of syphilis, and yet only weak positive or negative serologic reactions are obtained on repeated tests. Thus no hard and fast rules can be laid down regarding the significance of weak positive serologic reactions. In making the interpretation, each case has to be individualized, and the diagnosis must depend upon the clinical, rather than the serologic criteria.

In a definite number of instances, both of early and of late syphilis, seropositivity may not be present to support other evidence for syphilis. That is, the history and the finding of *treponema pallidum* in early lesions, or the presence of late active lesions, or their scars, or positive findings in the spinal fluid may furnish evidence for a diagnosis of syphilis, in a patient with a negative blood test.

Syphilologists diagnose correctly many cases of early syphilis, and some of late syphilis, in the face of negative flocculation tests. Therefore, from the clinical viewpoint, two types of syphilis are recognized, seropositive and seronegative, and serologic reports are merely an aid in the diagnosis.

In case of a strongly positive serologic test, a patient without definite clinical symptoms of syphilis is not diagnosed as having syphilis or placed on treatment until a confirmatory test is made, because it is recognized that neither the technician nor the technic is infallible. An error in the labeling of the specimen or in the performance of the test may occur. If a strongly positive reaction is reported a second time, it is fair to assume that it is due to syphilis reagins, provided other possible causes of false positive results have been ruled out. Before chemotherapy is started in any case of late syphilis, the spinal fluid is examined, because this often yields confirmatory evidence of the disease, in the absence of definite clinical signs.

TREATMENT OF SYPHILIS BY SCHEDULE

In 1939, the syphilologist treats syphilis by schedule, because the serologic test (immunity reaction) has proved to be an unreliable guide for therapy. Most of the schedules of therapy of this decade call for continuous treatment over a fairly long period of time, from one and a half to three years, regardless of what the periodic serologic examination shows. During the treatment of a patient with early infectious syphilis, we anticipate as a matter of course that the serologic test will become negative after the first twenty to thirty injections. If, however, this reversal does not take place, it is not a cause for alarm, because the serum remains positive in a certain proportion of instances, for a much longer period. It is now a rule in syphilis clinics that active and continuous treatment be administered in cases of early syphilis, with no interruption when the serologic reaction reverses.

In cases of late latent syphilis, treatment is not continued on account of positive serologic reactions alone. The outcome of treatment is measured in clinical rather than serologic terms. A positive serologic reaction in a case of benign late syphilis is not of gloomy portent clinically, nor does a reversal of the reaction constitute a guarantee against subsequent clinical relapse, the incidence of which bears a direct relationship to the persistence and adequacy of the treatment schedule. Even in the presence of a strongly positive Kline or Kahn test, the patient is placed on observation after completion of the standard chemotherapy, provided there is no clinical evidence of activity of the syphilis[12].

Value of periodic serologic tests—If then, the serologic reaction is not relied upon as a criterion in either the diagnosis or treatment of syphilis, the question might be raised as to what practical use is made of the results of periodic serologic testing. In carrying out treatment by schedule, the routine serologic test at the end of each course of ten or twelve injections is mainly of value in determining the duration of the infection in those cases in which the date of onset is unknown. If the serologic reaction reverses readily, it may be assumed that the infection was of short duration when treatment was started; if the reaction remains strongly positive, or reverses only partially, the syphilis may be assumed to be of longer duration. Only a small proportion of patients treated for late acquired syphilis and late congenital syphilis become and remain seronegative in spite of continuous intensive therapy. Although seroresistance furnishes an indication of the duration of the infection, there is not necessarily a correlation between seroresistance and clinical activity or progression of the disease.

In general, it may be said that when a patient who has previously had a positive blood test remains persistently seronegative, on repeated examinations, this is significant information. On the other hand, in cases in which the serologic reaction is persistently positive after prolonged treat-

ment, and in cases in which there is fluctuation in the reaction, the information is not of significance in judging the results of chemotherapy.

10515 Carnegie Ave.

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Trauma

Compensation laws have directed attention to the relationship of trauma to tuberculosis. Tuberculosis has a specific etiology and, therefore, trauma cannot produce the disease. Trauma can, however, reactivate a previously existing active tuberculosis. Most of the confusion comes from the varied opinion concerning the time interval which may elapse from the date of the injury to recognition of the tuberculous disease.

Gases and vapors may also activate a preexistent pulmonary tuberculosis by producing an inflammatory process in the vicinity of the preexisting tuberculosis disease by the irritant chemicals. (Several chemicals are listed.)

Trauma plays an important role in tuberculosis of organs other than the lungs. In this group the time element creates difficulties because of inability to demonstrate the immediate spread of tuberculosis.—George G. Ornstein, M.D., and David Ulmar, M.D., Quarterly Bulletin of Sea View Hospital, Vol. IV, No. 2, January, 1939.

Myesthenia Gravis

Prior to the discovery of modern drug therapy in myasthenia gravis, rest and large doses of strychnine with tube feeding were the only means of treating the disease. This meant almost complete incapacitation of the patient, and the severe cases could not survive. In 1932, Dr. Harriett Edgeworth, herself a sufferer from myasthenia gravis in a severe form, reported the beneficial effect in her own case of ephedrine sulphate taken by mouth. This observation led to the recognition of ephedrine as an important drug in the treatment of myasthenia gravis. The patient whose case I will report has been carried on ephedrine alone since January, 1937, and has been able to lead an economically independent life. Most observers, however, report more positive and lasting benefit from the use of prostigmin or of prostigmin in combination with ephedrine sulphate hypodermically or by mouth. This drug can be given either hypodermically or by mouth. The dose should be varied to fit the requirements of the individual case. Mitchell in reporting the experiences in Boston with oral prostigmin therapy advocates from 60 to 150 mgm. daily in divided doses of from 15 to 30 mgm. each, starting early in the morning. The effect comes on within thirty minutes, reaches its maximum in one hour and begins to diminish in two hours, disappearing within from three to five hours. The addition of atropine is beneficial in abolishing disagreeable effects if they occur. It can be taken either as tincture of belladonna from 3 to 15 drops three times daily or atropine sulphate from 1/150 to 1/200 gr. three times daily. A recent report by Viets, Mitchell and Schwab from the Department of Neurology, Massachusetts General Hospital, gives the results of treatment using prostigmin by mouth alone and combined with ephedrine.

Glycine in large doses (30 gms. daily) has been used in the series reported by Boothby. Its expense, the large doses required and the apparent lack of uniform benefit from its use have made it less of value than prostigmin and ephedrine in the treatment of myasthenia gravis.—Anthony B. Day, M.D., St. Louis; Jr. Mo. State Med. Assn., Vol. 36, No. 6, June, 1939.

A prostatic, aged one hundred and one, upon being brought to the operating room, seemed to be much worried and quite uneasy. Upon being questioned, he stated he was upset that morning and wished to defer the operation. He was disturbed about his "boy," he said; he had just received word that he was ill with pneumonia. The urologist asked, "How old is your boy?" and the patient answered, "Eighty years old."—A. E. Goldstein, Baltimore, Maryland.

Symptomatology of Infectious Gallbladder Disease

R. E. S. YOUNG, M.D.

THE symptoms and signs in 1,000 consecutive cases of cholecystitis and cholelithiasis were studied statistically. The patients were operated on, and the diagnosis was thus definitely established. For purposes of comparison, the cases were divided into five groups according to the pathological diagnosis of the surgical specimens.

1.	Chronic cholecystitis with cholelithiasis	589 cases
	Chronic cholecystitis without cholelithiasis	21 cases
2.	Acute cholecystitis	183 cases
	Acute cholecystitis with cystic duct stone (hydrops)	70 cases
3.	Stone in the common duct	102 cases
4.	Acute cholecystitis with stone in common duct	11 cases
5.	No pathological diagnosis (N.P.D.) of surgical specimen	24 cases

AGE

The ages of the patients varied in the first three groups. The average age in the group with chronic cholecystitis was 43 years. The youngest patient was 19 years old and the oldest 75 years. The largest number of cases was between the ages of 30 and 60 years. This distribution was obviously tempered by elective surgery.

The average age in the group with acute cholecystitis was 47.5 years. The youngest patient was 18 months and the oldest 84 years. Most of the cases occurred between the ages of 20 and 70 years. This distribution may be accounted for by the fact that cholecystitis frequently has its onset in the acute form, and thus more cases fall into the younger groups. Also, with advancing age there is a tendency for acute exacerbations to occur.

In the group with stone in the common duct, the average age was 50.8 years. The youngest patient was 25 and the oldest 77 years. The majority of cases occurred between the ages of 40 and 70 years. Stone in the common duct is then more frequent in the group of older patients. This seems reasonable, for after stones have formed it is a matter of chance and time before a stone becomes lodged in the common duct.

SEX

In the group of patients with chronic cholecystitis 15 per cent were males and 85 per cent were females. In the group with acute cholecystitis 30 per cent were males and 70 per cent were females. In the group with stone in the common duct 23 per cent were males and 77 per cent were females. Seventy-six per cent of all cases were obese; 54 per cent of the males and 83 per cent of the females were obese.

From the Department of Surgery of the University Hospitals, Cleveland, Ohio.

The Author

• Dr. Young, Columbus, Ohio, is a graduate of Harvard University Medical School, 1934; member attending staff at White Cross, Mt. Carmel, University and Grant Hospitals; assistant visiting surgeon to Children's Hospital, Columbus.

ONSET OF SYMPTOMS

The descriptive phrase "fair, fat, and forty" has been used for years. However, patients will usually say that symptoms have extended back over a considerable period of time. Many patients in this series gave a history of onset of symptoms in their early twenties. Many of these young patients were treated for gastric neurosis until the symptoms became severe enough to warrant a cholecystogram. In the group with chronic cholecystitis 30 per cent of the patients were 30 years old or younger. In the group with acute cholecystitis 26 per cent of the patients were 30 years or younger, and in the group with stone in the common duct 17 per cent were less than 30 years of age.

Although cholecystitis develops in many patients early in life, the average age at onset is about 40 years, and the average age at operation is more than 40 years. The average age at onset was 37 years in the group with chronic cholecystitis, 40 years in the group with acute cholecystitis, and 44 years in the group with stone in the common duct. The average age at operation was 43 years, 48 years, and 51 years respectively.

PAIN

Unpleasant symptoms are usually described to the physician for consideration, and the disease process may betray itself through this medium. The consideration of the symptoms is doubly important because no difficult, time-consuming or expensive laboratory procedures need be undertaken. Interpretation is as easily accomplished at the bedside as elsewhere. It is possible in the majority of cases to diagnose correctly each of the three main types of inflammatory disease.

Pain is a symptom that is common to almost all types of gallbladder disease.

Comparison of Pain in All Groups (in per cent)

Type of pain	Chronic	Acute	C.D. Stone	Acute & C.D.S.	N.P.D.*
Pain of all types	99	100	99	100	92
Right upper quadrant pain	73	58	77	36	58
Referred pain	64	57	77	82	33
"Gallbladder colic"	68	67	88	82	25

*No pathological diagnosis.

In comparing the cases in which pain was localized to any particular area, no definite conclusions could be reached. In the group with acute cholecystitis the pain was more extensive and more severe than in the other groups. The so-called typical gallbladder pain is colicky pain arising in the right upper quadrant with referred pain to the back. It occurred in approximately 70 per cent of the cases. In the remainder of the cases the gallbladder pain was atypical and in rare cases even bizarre. There were cases of left sided pain only, back pain only, pain referred to the right thigh, anterior chest pain, right lower quadrant pain, and pain referred over the entire abdomen.

SHORTNESS OF BREATH AND EXCESSIVE PERSPIRATION

Shortness of breath and excessive perspiration are signs that occur only in the more serious types of the disease. The so-called shortness of breath is more apparent than real and is caused by limitation of the excursion of the diaphragm because of the painful inflammatory process below the diaphragm. Approximately 24 per cent of the cases in the group with acute cholecystitis and 10 per cent of the cases in the group with stone in the common duct showed these signs.

CHILLS

Chills should be seriously viewed by the physician, for they are indicative of inflammation of the liver.

Group	Total with chills No.	Total with chills %	No biopsy. Liver enlarged	Biopsy positive	Liver not mentioned	Total of pathological livers No.	Total of pathological livers %
Chronic	9	1.5	4	4	1	8	89
Acute	34	13.0	9	15	10	24	71
C.D. Stone	24	24.0	7	12	5	19	79
Acute & C.D.S.	5	46.0	0	5	0	5	100
N. P. D.	0	0	0	0	0	0	0

Chills were found more frequently in the cases in which the infection was more severe. In 78 per cent of all cases with chills, there was gross evidence of inflammation of the liver. In the remaining 22 per cent the condition of the liver was not mentioned. The gross impression was substantiated by biopsy in 64 per cent of the cases. Every biopsy showed microscopic evidence of inflammation. The biopsies were reported variously as showing hepatitis, cholangitis, multiple abscesses, early biliary cirrhosis, and fatty necrosis.

In all groups there were 928 patients who did not complain of chills. The livers of 21 of these patients were reported as showing evidence of hepatitis. This opinion was confirmed by biopsy in nine cases. The incidence of hepatitis in patients without chills was therefore 2.3 per cent. However, biopsies were not taken in the majority of cases, and this represents a large potential source of error.

VOMITING

Vomiting is an important symptom. In the analysis of vomiting a valuable point in differential diagnosis in the five groups has been brought out.

Group	Vomiting with attack of pain No. of cases	Vomiting with attack of pain Per cent
Chronic	80	13
Acute	221	87
C. D. Stone	86	84
Acute & C. D. S.	11	100
N. P. D.	3	12

Vomiting starts 24 to 36 hours before clinical jaundice is perceptible, and occurs almost always while the leucocyte count is still within normal limits. In the group with chronic cholecystitis 13 per cent of the patients vomited. This value of 13 per cent may be viewed in a critical light, for of the 80 chronic cases in which there was vomiting 33 cases showed clinical jaundice. Thus, a stone in the common duct might have been overlooked or passed, and without the actual finding of a stone in the common duct these cases by definition must be placed in the chronic group. This value of 13 per cent is perhaps too high. If a patient has known gallbladder disease and vomits during an attack of pain, it is probable that either early acute cholecystitis or a newly impacted stone is present in the common duct.

JAUNDICE

Jaundice in gallbladder disease is usually considered to be obstructive, but non-obstructive jaundice in acute cholecystitis is certainly not rare.

The following table illustrates the relationship between jaundice and vomiting:

Group	Per cent with jaundice	Average icteric index	Per cent with vomiting
Chronic	5.4	48	13
Acute	15.0	34	87
C. D. Stone	80.0	53	84
Acute & C. D. S.	73.0	83	100
N. P. D.	0	0	0

Eighteen patients with jaundice complained of

itching of the skin, and only one patient of this group had an icteric index of less than 100.

PHYSICAL SIGNS

An evaluation of the dependability of physical signs can be gained from the following table:

Group	Per cent with tenderness	Per cent with spasm	Per cent with palpable gallbladder
Chronic	68	12	6
Acute	99	76	29
C. D. Stone	97	32	15
Acute & C. D.S.	100	82	20
N. P. D.	50	4	4

One patient with acute cholecystitis was semicomatose on admission to the hospital and did not show tenderness or spasm.

The clinical diagnosis of acute cholecystitis and stone in the common duct is dependent upon the finding of tenderness in the epigastrium. The presence of spasm serves to confirm one's suspicion of serious disease. A diagnosis of chronic cholecystitis should be considered questionable if there is no tenderness in the right upper quadrant.

CHOLECYSTOGRAPHY

The cholecystogram is most valuable in cases in which it is most needed, that is, in establishing the diagnosis of chronic cholecystitis with cholelithiasis. It is possible to draw conclusions only from the cases operated upon, for in these cases alone was the diagnosis definitely established.

	Reported pathological				Reported negative				Diagnosis correct	Total examined	
	Correct		Incorrect		Correct		Incorrect		Total in		
Group	No.	%	No.	%	No.	%	No.	%	per cent	No.	%
Chronic	340	99	3	1	0	0	6	100	98	349	59
Acute	126	99	1	1	0	0	4	100	97	131	52
C.D.S.	44	100	0	0	0	0	4	100	92	48	47
Acute & C.D.S.	3	100	0	0	0	0	0	0	100	3	27
N.P.D.	0	0	4	100	4	100	0	0	50	8	33

Of 521 cholecystograms from all types of cases in which the diagnosis of "positive for pathological gallbladder" was made, in 513 the diagnosis was correct and in eight incorrect. This represents an accuracy of 98 per cent.

It is impossible to check the accuracy of the negative cholecystogram, since few patients with negative cholecystograms are operated on. In this series only 18 patients with negative cholecystograms were operated on. In these 18 cases the surgeon operated in spite of the negative cholecystogram and based his judgment on the excellent clinical picture of cholelithiasis that these few cases presented. In 14 of the 18 cases (78 per cent) gallstones were found at operation. Thus, it appears that the negative cholecystogram is open to some error. The high value of 78 per cent negative inaccuracies is obviously incorrect, for in only 5 to 20 per cent of routine autopsies are gallstones found, and probably most of these could have been demonstrated by cholecystography. Thus, it would be unreasonable to say that 78 per cent of the patients with negative cholecystograms had cholelithiasis.

SUMMARY

1. The symptoms and signs in 1,000 patients operated on for diseases of the gallbladder were reviewed.

2. Of the patients operated on for chronic cholecystitis, 30 per cent were 30 years of age or younger.

3. Pain was present in 99 per cent of all cases.

4. Right upper quadrant pain with colic and with pain referred to the back was present in approximately 70 per cent of the cases. In 30 per cent of the cases the pain was atypical and in a few cases it was bizarre.

5. Chills were significant of acute inflammation of the liver.

6. If a patient has known gallbladder disease and vomits during an attack of pain, it is probable that either early acute cholecystitis or a newly impacted stone in the common duct is present.

7. In almost every case vomiting occurred 24 to 36 hours before clinical jaundice appeared.

8. Cholecystograms that were reported as being positive for a pathological gallbladder were correct in 98 per cent of the cases.

9 Buttles Ave.

It is no mean or accidental item of history, this dropping of the general death rate, of the maternal mortality, of diphtheria, typhoid fever, tuberculosis, pneumonia, and the enteric affections of children to levels heretofore hardly hoped for or calculated in the managed plans of an increasingly regimented society. We are in a sense at the top of an accomplishment that is but the result of a century of rational and determined effort to put knowledge of human biology to work for the people by the joint interests of organized society and its representative government.—Haven Emerson, M.D., New York City; N. Y. State Jr. of Med., Vol. 39, No. 10, May, 1939.

It would cost this country a hundred times less money to wipe out tuberculosis in one generation than to maintain this ghastly luxury for an indefinite period, according to Paul de Kruif.

Oculoglandular Tularemia Contracted From the Tree Squirrel

MELVIN OOSTING, M.D.

TULAREMIA, in recent years, has become a well recognized disease. Physicians have become generally familiar with the manifestations of the more common ulceroglandular form of the disease, with the characteristic primary ulcer, usually of the skin of the fingers or hands, and the regional lymphadenopathy, usually axillary and epitrochlear. There is less familiarity with the more rare form of the disease known as oculoglandular tularemia or conjunctivitis tularensis. One purpose of this report is to describe the characteristic features of this type of the disease and to record what we believe to be the first case of oculoglandular tularemia contracted from a tree squirrel.

Tularemia was discovered by McCoy and Chapin of the United States Public Health Service, while studying rats and ground squirrels for evidence of bubonic plague following the California earthquake in 1906. The causative organism was named *Bacterium tularense*, after Tulare County, California, where the discovery was made. The blood of Chapin, who contracted the disease, gave a positive agglutination test when tested with the bacteria isolated from the ground squirrel. These studies provided the agglutination test now widely employed for the diagnosis of tularemia[1].

Vail[2] described the first case of tularemia in man in 1914. This was of the oculoglandular type; the organism was recovered by Wherry and Lamb[3] by animal inoculation of material taken from the conjunctiva.

In 1920, Edward Francis proved that deer-fly fever in Utah was due to infection with *Bacterium tularense*. Since then it has been shown that many rodents, rabbit ticks, wood ticks, deerflies, coyotes, hogs, cats, quail, pheasants, and other animals and birds are hosts and transmitters of this infection to man[4].

Four varieties of this disease are recognized; ulceroglandular, glandular, typhoid and oculoglandular. This disease has been known among market men for at least 30 years as "rabbit disease" or "rabbit fever." It was well known that meat handlers often became infected after dressing rabbits for the market. These men recognized the fact, too, that one attack immunized them. The antitularense serum agglutinins remain permanently. Positive agglutination tests have been made 19 years after the original infection[1].

Tularemia in man in this locality is most prevalent during the season when wild rabbits are hunted. It is important to keep in mind the oculoglandular form of tularemia whenever a case of ulcerative conjunctivitis with associated cervical adenopathy presents itself.

The recorded cases of oculoglandular tularemia number 68. Of these 52 can be traced to rabbits, 10 to the crushing of ticks, one to the crushing of a fly, one to a ground hog and one to either rabbits or squirrels. In the remainder the source of the infection was not stated[5].

The diseases known to ophthalmologists as Parinaud's conjunctivitis and conjunctivitis infectiosa necroticans (Pascheff) bear close resemblance to oculoglandular tularemia. It seems quite probable that most or all of the cases described under these names were actually examples of oculoglandular tularemia[6].

The patient usually presents himself complaining of chills and fever associated with headache and backache and often with nausea. The eyelids feel thick and may stick together due to a seromucoid discharge that is almost always present. At the same time the lymphnodes of the neck and submaxillary region as well as the preauricular lymphnodes on the affected side become enlarged and tender. If the eyelids are examined at this time, one or more small yellow discrete ulcers situated in the deeply congested conjunctiva will be seen. Vail's vivid description of the appearance of the conjunctiva of his patient deserves repetition: "The contrast between the deep red color of the conjunctiva and the brilliant golden color of the ulcers is as striking as a turkey-red calico dress with yellow polka dots[2]." Usually the cornea is not involved but there is often a thin film present which clouds the vision. Later the ulcers become nodular and covered by a

The Author

● Dr. Oosting, Galveston, Texas, is a graduate of Northwestern University Medical School, 1935; formerly assistant director of laboratories, Miami Valley Hospital, Dayton, Ohio; instructor in pathology, University of Texas School of Medicine, Galveston, Texas.

*From the Diagnostic Laboratories of the Miami Valley Hospital, Dayton, Ohio.

membrane. The patient complains of severe pain in the eye; marked photophobia and lachrymation are present.

Cultures made at this time or at any time during the course of the illness may yield no growth or perhaps colonies of pyogenic cocci. Smears usually reveal many polymorphonuclear leucocytes. It is usually impossible to cultivate the organism directly on artifical mediums. Washings from the conjunctival sac, injected into the peritoneal cavity of guinea-pigs causes the animals to die within four to seven days and autopsy reveals the presence of focal necrotic spots scattered throughout the liver, spleen and lymphnodes. The organism may be recovered in cultures made from these areas on appropriate cystine-containing medium.

Prior to 1932, a definite diagnosis could not be made except by recovery of the organism or by a positive agglutination test. Unfortunately the serum agglutinins ordinarily do not appear in sufficient concentration to yield a positive test for 10 to 14 days after the onset of the disease. Wherry had suggested in 1917 that the intradermal injection of a suspension of *Bacterium tularense (Pasteurella tularensis)* might prove useful in the diagnosis of tularemia. In 1932, Foshay[7] introduced the intradermal test. By the use of the skin test it is usually possible to make the diagnosis after the fourth day following the onset of symptoms.

The histologic picture of the lesions of tularemia is that of an infective granuloma, characterized by epithelioid granulation tissue, with or without caseous necrosis, lymphocytic, polymorphonuclear leucocytic and plasma cell infiltrations, with occasional foreign body giant cells of the Langhans' type. It is often difficult to distinguish the lesions of tularemia from those of tuberculosis. The endothelium of the blood vessels in the granulomatous areas usually shows hyperplasia.

Although tularemia is a self limited disease, complications are not uncommon. The involved lymphnodes may suppurate, necessitating incision and drainage. This is the most common complication. Doyle reports a case of optic neuritis resulting in blindness as a complication of oculoglandular tularemia[8].

There is no evidence that tularemia is contagious. Weilbaecher and Moss[9] report a case of man-to-man transmission of tularemia by means of accidental incision of the finger while performing an autopsy on a patient who died of tularemia. It has been demonstrated that the organism can penetrate unbroken skin and mucous membrane. In the reported cases of the oculoglandular type there was no evidence of any perforating injury to the conjunctiva. Simpson[10] reproduced the oculoglandular form of the disease in animals by placing suspensions of infected tissue in the intact conjunctival sac.

In 1932, Foshay[11] introduced an antiserum for the treatment of tularemia. Although the disease is self limited and the mortality is comparatively low, it frequently incapacitates the individual for so many months that a specific treatment is welcomed. Using goats inoculated with a suspension of *Bacterium tularense* and then the horse as the source of his antiserum, Foshay succeeded in markedly shortening the course of the disease as well as often preventing suppurative complications. The serum is given intravenously as soon as possible after a diagnosis has been made. Although it may be useful as late as the second and third month of the disease, it is best given during the first week. We have used the Foshay antiserum in 41 cases with distinctly beneficial results.

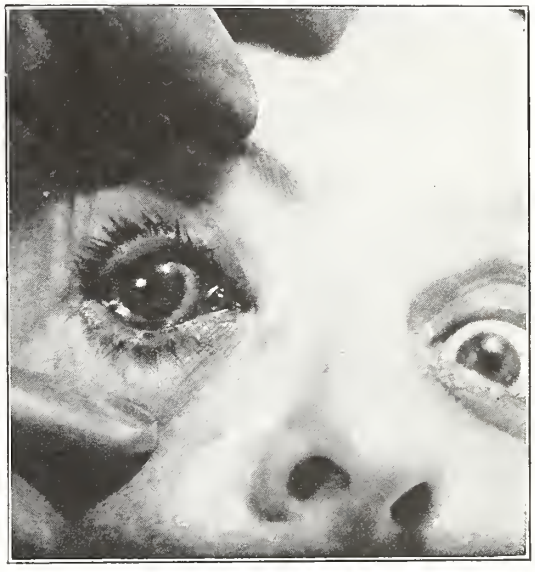


Figure I. Oculoglandular tularemia of the right eye.

The case to be reported is a typical example of the oculoglandular type of tularemia and illustrates what may be expected from the use of the specific antiserum.

Mrs. F. S., a 41 year old white housewife, was admitted to the Miami Valley Hospital on October 20, 1937, complaining of a painful, reddened, swollen right eye; swelling of the neck; and a high temperature. On October 1, she had washed and prepared for cooking several fox squirrels which her husband had dressed. On October 6, she had again washed and prepared squirrels which her husband had shot and dressed. There was nothing unusual noticed about the animals. On October 9, eight days following the first handling and three days following the second handling of squirrels, she noticed that the inner angle of the right eye was inflamed. The next day this injection had extended over the conjunctiva and sclera and a white membrane seemed to have formed over the cornea. She felt well during this time. However, the eye burned and there was marked lacrymation and photophobia. The next day, October

11, the eye was much worse and the film covered the entire cornea. She then developed a high fever with chills, and became very weak and lethargic, and was forced to remain in bed. Later the eyelids became so markedly swollen that they could not be opened voluntarily. The right cervical lymphnodes became enlarged during this time, followed by similar involvement of the right anterior auricular lymphnodes. She thought she had mumps. The eye continued to drain a thin mucopurulent material which caused the lids to adhere.

The past history was essentially negative. There was no history of dyspnea, hemoptysis, cough, or pain in the chest.

On physical examination, the right eye revealed marked injection of the sclera and conjunctiva. There was a thick mucopurulent exudate in the inner canthus, but no evidence of a membrane over the cornea. There were several small, pinhead size, punched-out ulcers on the lower lid margin and also 10 similar ulcers on the conjunctival surface of the upper eyelid. These ulcers were covered by a thick purulent exudate which could be easily wiped off leaving a raw surface. The cornea and retina showed no abnormalities.

The right superior cervical region was swollen and indurated. This swelling extended upward over the cheek and anterior to the right ear. A small pea sized lymphnode was palpable behind the ear. The right superior cervical, preauricular and submental lymphnodes were enlarged, confluent and painful. There was no fluctuation present.

The heart was not enlarged. There were numerous ventricular extrasystoles. There were no murmurs. The blood pressure was 120/66. The spleen and liver were not palpable. There was no axillary or inguinal adenopathy. There was no cyanosis or edema.

The erythrocyte count was 4,230,000 cells per cubic millimeter with 80 per cent hemoglobin (Dare). The leucocyte count was 10,150, with 44 per cent mature and 32 per cent immature polymorphonuclear neutrophiles and 24 per cent lymphocytes. The sedimentation time (Linsenmeyer method) was 14 minutes. Cultures from the eye showed no growth on ordinary media. An intradermal skin test with a suspension of *Bacterium tularense* gave a strongly positive test in 12 hours. The agglutination test showed a complete agglutination of *Bacterium tularense* in a dilution of 1:320. An electrocardiogram showed partial intraventrical bundle-branch block with many ventricular extrasystoles and evidences of myocardial changes probably of coronary origin.

A diagnosis of oculoglandular tularemia was made, associated with coronary heart disease.

She was given 30 cc. of Foshay antitularense serum in two doses of 15 cc. each, intravenously, on successive days, (October 22 and 23). It should be mentioned that she had a skin reaction to the antiserum consisting of a local erythema which Foshay considers to be a specific bacterial reaction rather than a manifestation of protein sensitivity[12].

Following serum therapy, improvement was prompt and striking. Within three days the involved lymphnodes became greatly reduced in size, the conjunctival injection had almost disappeared and the conjunctival ulcers showed distinct healing changes. One week later the ulcers were completely healed leaving no scars. On the fifth day after receiving the antiserum, she developed serum sickness which responded to the usual supportive measures. At the time of dismissal the right cervical and preauricular adenopathy had almost completely resolved. There appeared to be little doubt that serum therapy greatly lessened the severity and duration of the disease.

The source of infection was undoubtedly the tree squirrel. It is probable that the infecting material was inadvertently carried to the eye by the fingers. This case emphasizes again the fact that the organism can penetrate the unbroken mucous membrane.

SUMMARY

A case of oculoglandular tularemia contracted from the tree squirrel, probably unique in medical literature, is presented. The ocular lesions and the regional lymphadenopathy responded promptly and favorably to the antitularense serum therapy devised by Foshay.

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Sulfanilimide and Tubercle Bacilli

The "wonder drug" sulfanilimide—is being modified in the attempt to make it effective against the acid-fast tubercle and leprosy bacilli, but the work does not, as yet, permit any conclusion as to the efficacy of the new product in man. It is a combination of sulfanilimide and of cocoanut oil which it is hoped will enable the drug to penetrate the waxy content of the bacilli, which has heretofore served as armor against chemotherapy. Crossley, M. L. with Northey, E. H. and Hultquist, M. E., N. Y. Times, April 7, 1939.

The Control of Anterior Nasal Hemorrhage

HENRY JONES MULFORD, M.D.

ANTERIOR nasal hemorrhage (the common "nose-bleed") is so much an every-day occurrence that it is looked upon as a trivial affair; but it may become so persistent as to be a distinct annoyance, and even a threat. When trivial it easily may be controlled; but when persistent it sometimes keeps on until the patient is, almost, if not completely exsanguinated. We need, therefore, some sure method for stopping the arterial flow. In this paper two methods for that purpose are presented, each sufficient in its own reach, except, perhaps, when used on hemophiliacs. These methods are so simple, so easy of operation, as to be available to all medical men; they do away with the cumbersome packing and the cauterization commonly employed for checking "nose-bleed." In fact, in using these methods it is not necessary to touch the nose. All that we have to do is to shut off the blood supply to the bleeding area. This supply comes from two directions. First, from the superior coronary artery that supplies the upper lip. This artery sends a branch up across the lip, that, entering the anterior nasal chamber, becomes the artery of the septum. Second, from the descending palatine artery. This vessel, crossing the roof of the mouth, enters the anterior palatine fossa just behind the incisor teeth and, passing through the foramen of Stenson, emerges upon the floor of the nose.

My methods for the checking of anterior nasal hemorrhage are illustrated in the following cases.

Case 1. Young man of twenty. Removed an exostosis from the left side of his nasal septum under cocain and adrenalin; bleeding negative; naris plugged with gauze. Operation performed at 2 p.m. At 5 p.m. nose began to bleed, becoming so profuse as to necessitate packing the naris tightly with gauze. Bleeding checked. At 11 p.m. patient telephoned that he had blown out the packing, and that he was having a real hemorrhage. Going to his home I found him seated before the dining room table, his head over a large bowl, with blood coming freely from his mouth and both nares. Blood was over everything. The accepted procedure at that moment would have been to repack the naris; but, recalling the source of the arterial supply to the septum, I wondered if an injection of adrenalin might not close the bleeding vessels. I at once injected ten drops of a 1-1000 solution of adrenalin chloride into the patient's upper lip close to where the branch from the superior coronarry artery enters the left naris. Bleeding ceased immediately, and did not recur. Healing of the septum proceeded without untoward incident.

A warning must be given here in regard to the use of adrenalin in these cases. Immediately upon the completion of the injection in the above case the patient exclaimed: "Oh, Doctor, my heart!" The heart rate had jumped to 100, and its contractions had become so violent as to raise the entire chest wall. But, to the comfort of both the patient and myself, the heart's action returned to normal within the minute. Had this heart muscle been impaired this sudden adrenalin "attack" might not have been so good for it! In subsequent cases I reduced the amount of adrenalin solution to three or four drops. I considered this method infallible until recently, when the following case came to me.

Case 2. A man of sixty. Had been having occasional "nose-bleeds" for two days. Came to me on the third day after his nose had bled freely for two hours. Examination of the patient's nose revealed a bleeding point at the anterior edge of the septal cartilage on the right side, midway of its upper insertion. The blood was flowing freely from a vessel that seemed to be of unusually large diameter. To make a long story short, this was the most unruly nasal hemorrhage that I have ever seen. For two days it resisted my every attempt to control it. Injection of adrenalin, packings, cauterizations, all failed. The last packing was on the evening of the second day. At 5 the next morning the bleeding broke out with greater vigor then ever. Removal of the packing revealed that the septal artery had given way at a point lower down, where its diameter was greater. In fact, the hemorrhage had assumed alarming proportions. The man had lost considerable blood during the two days, and, now, was losing more every second. Seeking a way out of the difficulty I again recalled the source of the blood supply to the nasal artery, and it suddenly came to me that a suture, properly placed, was the solution. Everting the upper lip I sutured the arterial branch connecting the superior coronary artery with the septal artery. This branch is easily reached, lying as it does between the mucous membrane lining the upper lip and the orbicularis oris muscle, by a curved needle that carries the suture gut around the artery. This I did, tying the gut tightly over the lining mucous membrane. The hemorrhage stopped at once. Visiting the patient at noon I found his nose free of blood, but his upper lip enormously distended, with the gut beginning to cut through its lining mucous membrane. With removal of the suture the swelling rapidly subsided. Today, more than a year since this was done, the nasal septum appears to be in normal condition, and the area has been free from bleeding of any sort.

In placing a suture in this region it would be well to use a fairly heavy gut, and not to leave it in place for too long. A suture left in place too long will cut through the mucous membrane lining the upper lip, and may, also, cut through the artery itself.

1450 Delaware Ave.

Submitted March 18, 1939.

The Author

● Dr. Mulford, Buffalo, New York, is a graduate of University of Buffalo School of Medicine, 1889; past president Buffalo Oto-Laryngeal Society.

Protamine Zinc Insulin

With Especial Reference to the Initiation and Control of Treatment in Ambulatory Diabetic Patients

RALPH L. COX, M.D.

USING unmodified insulin, the regulated continuous secretion from the normal pancreas into the portal vein is replaced by a few daily injections. During the last hours before such injections, metabolic disturbances which tend to minimize available deposits of carbohydrate, strongly needed when the blood sugar is lowered after an injection, develop in the diabetic individual. If absorption of insulin is retarded, these difficulties are reduced.

The discovery of Hagedorn[1] that protamines will combine loosely with insulin, giving flocculant precipitates that are relatively insoluble in tissue fluids, whereby prolonged hypoglycemic effects are obtained, was a remarkable step forward in insulin therapy. The addition of zinc to protamine insulin, suggested by the work of Scott and Fisher[2,3], further enhanced the prolonged action, and rendered the mixture relatively stable. Some objection was raised to the addition of zinc, but no fear was justifiable. The pancreas normally contains appreciable quantities of numerous heavy metals, among which that of zinc is greater than any other[4]. Insulin has always contained traces of zinc. A lessened effect from the unmodified insulin of recent years, as compared with that first obtainable, has been ascribed to a diminution in the amount of zinc contained in the later more refined product[5,6]. No harm from the zinc of protamine zinc insulin has been noted[7]. Protamine zinc insulin is the only protamine insulin combination available today.

The length of time during which an effect is maintained by a single injection of protamine zinc insulin is influenced by the size of the dose and by the amount of sugar to be metabolized. Injections inadequate for control of the diabetes may show little prolongation of action[8]. An injection adequate for maintenance acts for a shorter time when food is given than when food is withheld. The insulin seems to be liberated from its union with protamine faster, or acts sooner, in the presence of food, thus simulating the action of the normal pancreas. Zinc appears to impart an increased sensitivity to the insulin-protamine compound[7,9]. It seems that insulin is "protected" by zinc, or bound to the cell for a longer period, instead of being rushed past the liver and other tissues, perhaps to be excreted. Even with the administration of an adequate diet a single injection of protamine zinc insulin has been found to be effective for 36 hours[6].

The first objective in the treatment of diabetes mellitus should be control of the disease during the night. The restraint of exaggerated rises in the sugar content of the body after meals should be only secondary[10,11]. Wilder[12] likens the latter to the spill from an overfilled vessel. Glycosuria occurring during the night is derived from stores of glycogen and from catabolizing protein. Experimental data[13] illustrate the importance of insulin in protecting the body proteins from catabolism. Protamine zinc insulin prevents the periods when the tissues of the diabetic individual treated with insufficiently frequent doses of unmodified insulin are called on to deliver amino-acids for the manufacture of dextrose. The ketosis accompanying the resulting negative nitrogen balance also does not occur with an insulin active longer than 24 hours[11,13].

METHOD OF USE

The earliest workers[1,14] with protamine insulin usually either gave it in the evening, with a dose of unmodified insulin in the morning, or gave two injections of protamine insulin daily. As evidence accumulated that the full effect of an injection was not exhausted until some time after 24 hours, the administration of protamine zinc insulin in one dose daily, before breakfast, has been widely adopted[11,15,16,17,18,19,20,21,22,23,24]. Himsworth[25], however, obtained very good results by giving protamine zinc insulin at 11 o'clock at night, and Winnett[26] gave it two or three hours before breakfast, both claiming a better utilization of the food taken during the following day.

The principal advantage of the single dose before breakfast is that a qualitative test of the morning urine for sugar becomes an accurate guide to dosage. If this test reveals sugar, the dose is inadequate and may be increased with safety. If no sugar is found, the dose is as large as can be tolerated, and any evidence of hypoglycemia is an indication for a reduction in the

Submitted March 1, 1939, at request of Editor.

The Author

• Dr. Cox, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1927; member Association for the Study of Internal Secretions; American Heart Association; certified by American Board of Internal Medicine; visiting physician, Cleveland City Hospital; senior clinical instructor in medicine, Western Reserve University School of Medicine.

dose. It has been suggested[27] that it should be possible to control very mild diabetes with one injection every two days. I have had no experience with this method, although an occasional patient has been under excellent control with a daily dose of five, four or even two units of protamine zinc insulin.

In initiating an untreated case of diabetes mellitus to protamine zinc insulin, Joslin[17] has suggested that one begin with 10 units, increasing the dose 10 units daily to as many as 60, meanwhile adjusting the diet coincidentally from meal to meal in accordance with the indications of Benedict's test. It seems to me that the procedure is rendered unduly arduous by not placing the patient on an appropriate diet immediately, and by not making an estimate of the required insulin dosage forthwith.

In changing a patient from a regime with unmodified insulin to one with protamine zinc insulin, the procedure has been considered "serious"[28]. Joslin says that it is better to hospitalize the patient, that three days of preliminary observation are essential, that the diet of the previous regime should be retained[17] as any coincidental change in diet would complicate the procedure, and that the insulin dosage should be regulated slowly because of the cumulative action of the slower acting insulin. Wilder[6] suggested that, because of the retarded effect of the new insulin, it is advisable to give 40 per cent of the previous unmodified insulin as a supplement on the first day, and 20 per cent on the second day. Campbell[16] recommended a similar procedure. Richardson[29] divided his patients into groups on a basis of their previous regimes and states of control, modified their diets for use with protamine zinc insulin, and gave them varying doses accordingly. To uncontrolled patients he gave unmodified insulin for a time before transferring them to protamine zinc insulin. Mosenthal[24], without giving any details of the method he adopted, insisted that the quickest regulation and the greatest economy of time and expense are accomplished by office or dispensary management. Bowcock[30] was also successful with office management in changing from unmodified insulin to protamine insulin, but gave no details. Wilder[27] said that the change could be made in ambulatory patients, with daily visits and four tests of fractional urine specimens daily. Shepardson and Friedlander, in a recent report[31], also said that four urine specimens daily were required.

From the diabetic clinic of the Cleveland City Hospital no patient was hospitalized for transferral from a regime with unmodified insulin to one with protamine zinc insulin. A few patients hospitalized for intercurrent disease, or because of intervening diabetic acidosis, were transferred to protamine zinc insulin in the hospital, but the vast majority were changed from one to the other without hospitalization, without daily visits to the out-patient department, and without the examination of more than a single morning specimen of urine on the day of each visit. Depending upon the state of regulation of their diabetes, they were advised to take a single dose of protamine zinc insulin once daily before breakfast, the size of that dose varying between 60 and 100 per cent of the number of units of unmodified insulin previously taken. A very few, especially intelligent and cooperative, were told to take their usual evening doses of unmodified insulin on the first day that they took the new insulin. With rare exceptions no changes in diet were made. When the patient happened to be on a diet relatively high in fat and relatively low in carbohydrate, a change to a more suitable diet was made coincidentally, with allowance in the suggested insulin dose to cover the change. Adjustments in dosage were made as indicated, at weekly or longer intervals. Blood sugar determinations were seldom made. Rabinowitch has said[32], and I concur, that frequent blood sugar determinations are of more academic importance than clinical, and that if the 24 hour urine is sugar-free, the blood sugar has been normal or nearly so.

DOSAGE AND RESULTS

Although Duncan has said[18] that 80 to 120 units of protamine zinc insulin are not uncommon doses, and a case is reported[19] where control of the diabetes was obtained with 140 units, many observers have stated[6,10,11,12,20] that a single morning dose of protamine zinc insulin is satisfactory only for individuals taking not more than 50 units, and that in many cases of severe diabetes supplementary doses of unmodified insulin are required to prevent glycosuria after meals. It is usual to give such supplementary doses prior to the meals which are regularly followed by glycosuria. If unmodified insulin is to be given at the same time as the dose of protamine zinc insulin, it is undesirable to attempt to combine the two in the same syringe[12,17,33]. It is my feeling that such occasions seldom arise, as with a sugar-free urine before breakfast, postprandial glycosuria later in the day is more apt to occur after lunch or after the evening meal. Wilder says[27], however, that accessory insulin is usually given at the same time. Lawrence and Archer feel[11] that the combination of the two insulins in the same syringe can be made advantageously. The question might profitably be raised, whether or not the zinc of the presumably loose, ill-understood combination with protamine and insulin may adversely affect the action of unmodified insulin if the two be combined in the same syringe. It might further be questioned whether or not the protamine might modify the effect of the added unmodified insulin.

Patients who require more than 50 units of insulin for control of their diabetes are apt to be unstable, with unpredictable fluctuations in their insulin requirements. I am unable to see an objection, however, to increasing the dose of protamine zinc insulin to whatever level is necessary to insure a sugar-free urine before breakfast without the occurrence of insulin reactions. Such gauging of the dose of protamine zinc insulin will obviate the need for many of the supplementary doses of unmodified insulin advocated by others. Less than 4 per cent of the 209 patients taking protamine zinc insulin in the diabetic clinic of the Cleveland City Hospital are also taking unmodified insulin.

Of these 209 patients taking protamine zinc insulin, 125 were previously on regimes with unmodified insulin. These were changed to the new regime during the last 10 months of 1937. Eighty-four patients have been initiated upon regimes with protamine zinc insulin during the last two years. An analysis of the results in the control of these patients appears in tables I, II and III. Of the combined groups, 84 were men, of whom seven were negroes; and 125 were women, of whom 12 were negroes. The ages of the patients at the time of inaugurating their regimes with protamine zinc insulin varied between 12 and 81. The mean age of the men was 47; of the women, 56. The average ages were 46 and 53, respectively. No children under 12 are included, as the routine of the hospital delegates their treatment to the pediatric service. The duration of the diabetes varied from cases of recent onset to over 25 years. The average duration of diabetes in the group previously on a regime with unmodified insulin was a little under six years; in the group not previously treated with insulin, a little over three years. The mean duration, in each of the groups, was somewhat less than the average.

TABLE I.

State of Control of 125 Patients Changed from Regimes with Unmodified Insulin to Regimes with Protamine Zinc Insulin.

	With unmodified insulin		With protamine zinc insulin	
Control	No.	Per Cent	No.	Per Cent
Excellent	27	21.6	61	48.8
Good	30	24.0	34	27.2
Fair	33	26.4	18	14.4
Poor	35	28.0	12	9.6

TABLE II

State of Control of 84 Patients Initiated upon Regimes with Protamine Zinc Insulin

Control	Number	Per Cent
Excellent	57	67.9
Good	20	23.8
Fair	2	2.4
Poor	5	6.0

With protamine zinc insulin the average patient requires a smaller number of units daily than he did with unmodified insulin. Average reported savings have been about 25 per cent, but occasionally the saving is much greater. The saving in the number of units required by the 125 patients in Table I averages a trifle under 20 per cent, due largely to the previously inadequate degree of control that many of the patients had, but the mean saving was 30 per cent. The doses of protamine zinc insulin have been as high as 110 units. The mean dose for the patients previously receiving unmodified insulin is 30 units; for the patients not receiving insulin previously, 20 units. The average dose for the first group is 31.3 units; for the second group, 24.6 units.

TABLE III

State of Control of 209 Patients Receiving Protamine Zinc Insulin

Control	Number	Per Cent
Excellent	118	56.5
Good	54	25.8
Fair	20	9.6
Poor	17	8.1

For patients requiring more than 40 units of protamine zinc insulin, U 80 strength is available. Early fears that the reduced volume of injected material of this strength would shorten the duration of its action were not warranted, as the two strengths, U 40 and U 80, seem to be comparable, unit for unit.

REACTIONS

Insulin reactions following the administration of protamine zinc insulin are less frequent than following the giving of unmodified insulin. The experienced patient is usually given a longer period of warning. Muscular exertion is particularly likely to provoke reactions, due to its stimulation of the production of endogenous insulin. Exercise must be carefully regulated, or additional carbohydrate must be administered before and after unusual exercise. The prodromes of a reaction from protamine zinc insulin are different from those due to unmodified insulin. Those symptoms which have been attributed, probably correctly, to the protective mobilization of epinephrine are less pronounced. The sugar level falls so gradually that the adrenals seem not to be aroused. Tremor, sweating, tachycardia and a pounding pulse may be missing;

symptoms of cerebral origin, such as loss of suavity, mental confusion, drowsiness, fatigue, exaggerated reflexes and headache, and nausea, perhaps vomiting, often become the only criteria of hypoglycemia. These symptoms are confusing, as they resemble those of acidosis. Campbell has pointed out[34] that the patient having a reaction from protamine zinc insulin behaves much like the patient with an islet tumor, in his tendency to have reactions at night or when there are long intervals between feedings, and in his hypersensitivity to exercise. Convulsions or unconsciousness are less common than with reactions from unmodified insulin.

A symptom of hypoglycemia in patients taking protamine zinc insulin which I have not seen noted in the literature, but which has been frequent in patients studied here, is vertigo. Vertigo is apt to be the only complaint of the patient with moderate hypoglycemia. It has become my custom to ask the patient who is more or less consistently sugar-free in the morning how he feels before breakfast. If he has any untoward symptom, it has most often been vertigo of which he complains, and such a history is an indication to reduce the insulin dosage. Reactions are apt to be prolonged and to recur after treatment, as more of the insulin is dissolved and mobilized. The patient should carry lump sugar, or other readily available carbohydrate, and take some at the first unusual symptom such as those noted. The taking of carbohydrate should be repeated every 20 or 30 minutes until, and perhaps after, the next meal, if symptoms persist or recur.

Such hypoglycemia may be damaging to the central nervous system. Bollman gave protamine insulin to dogs[35] in sufficient doses to maintain hypoglycemia, and observing no symptoms other than drowsiness for 50 to 60 hours, gave dextrose and found that fatal convulsions ensued. Animals dying during such attacks showed multiple petechial hemorrhages throughout the brain. This was confirmed by Sherrill and MacKay[36], who found that dogs made stuporous by the administration of this insulin, with blood sugars between 20 and 30 mgs. per 100 c.c. for 24 to 48 hours, died even after a normal blood sugar was restored.

If one insists upon a continuously sugar-free urine on a regime with protamine zinc insulin alone, chronic hypoglycemia is often unavoidable. Some patients feel better when they show some sugar in the urine. If this is no more than traces later in the day, and only occasional traces in the fasting specimen, most workers willingly allow such glycosuria. Wilder says[12] that, in view of the nitrogen sparing from a continuous protamine zinc insulin effect, of the dangers of hypoglycemia, and of the fact that many patients are uncomfortable when sugar-free, it is unwise to insist upon a continuously normal blood sugar. Sindoni[37], Richardson[29,38], and Jackson and Boyd[39] do not agree, but their objections seem unreasonable, their criteria of controlled diabetes impractical.

EMERGENCIES

Early workers felt that there was no advantage in the use of protamine insulin in emergencies. Hagedorn[1] thought ordinary insulin preferable in coma. Within the past 20 months the trend has been away from this stand-point. Ricketts[40] excepted those emergencies which arose in patients already taking protamine zinc insulin, continuing it and giving additional unmodified insulin as indicated. Wilder cited a case of coma[6], obviously without a bad prognosis, treated with no specific therapy except 75 units of protamine insulin. It became the practice at the Mayo Clinic to give 50 to 100 units of protamine insulin immediately, and thereafter administer such multiple doses of unmodified insulin as were required from examinations of the blood and fractional specimens of urine. Rabinowitch has gone furthest in advising protamine zinc insulin in emergencies. He states unequivocally[32] that protamine zinc insulin is effective in patients with severe acidosis, with or without infection, and[33] that it is not contraindicated in the treatment of coma. Routine treatment in Montreal now consists of one administration of protamine zinc insulin subcutaneously and unmodified insulin subcutaneously and intravenously, simultaneously in large amounts, followed by the frequent administration of carbohydrate. The blood sugar is lowered rapidly to normal even in severe cases of coma, and maintained at such levels despite the administration of hundreds of grams of carbohydrate. Rabinowitch presents data to indicate that the retention of such large amounts of carbohydrate is not due to an inability of the kidneys to excrete sugar, but to the proper utilization of that carbohydrate by oxidation or storage or both.

COMPLICATION

Complications from the administration of protamine zinc insulin have not been frequent or severe. Allergy to the preparation has seldom been reported[18]. Local allergic manifestations cease to occur as administration of the product is continued[41]. Local irritation is more frequent than following injections of unmodified insulin. A considerable group of patients complain of "insulin lumps", tender nodular subcutaneous swellings at the sites of injection. These complaints are obviated by instructing patients to inject the insulin more deeply and to massage the site of injection afterward. Fat atrophy is said to have occurred[41], but its incidence is greatly lessened. The frequency of fat atrophy should be less, since the insulin is re-

leased from its combination with protamine only after absorption. Vascular accidents from the use of this suspension have not been reported[12].

DIET

Many observers have said[16, 42, 43] that a greater latitude in the amounts of foods may be allowed with the new insulin. Hagedorn's diets provided[1], on an average, 2300 calories, with 100 grams of carbohydrate. Routine diets at the Mayo Clinic[12], and also Joslin's standard diet, allow an average of 150 grams of carbohydrate. The usual diet at City Hospital provides the same amount. Some 16 per cent of the patients are allowed more carbohydrate than this (maximum 300 grams); about 5 per cent are limited to less (minimum 100 grams). Campbell considers [16, 34] that the margin of safety is smaller with higher carbohydrate diets, and announces good results with diets high in fat and low in carbohydrate. Good results have been obtained with diets very high in carbohydrate (up to 300 grams) by Rabinowitch[7] and by Duncan[18]. With such diets the latter suggests that the meals be "spread" to produce more uniform absorption of carbohydrate because of the more constant hypoglycemic effect of protamine zinc insulin. Others have also fed their patients between meals[17,21,23,29,39,40]. Many observers believe[12,24,34], however, and I concur, that methods involving additional feedings between meals, while useful in exceptional cases, are undesirable for routine employment.

DIFFICULTIES

While the treatment of diabetes has been improved, it has by no means been simplified. More effort is required of the physician[20]. Not all reported results have been entirely favorable. Whitehill and Harrop state[44] that with uncooperative patients, lax in the management of their diabetes, unmodified insulin is safer and more satisfactory. It is true that the uncooperative patient is almost always poorly controllable, but in this clinic, with at least a usual proportion, I believe, of uncooperative patients, 28 per cent of all patients receiving unmodified insulin were poorly controlled (Table I), and of these, only 26 per cent are still under poor control on the new regime. Whitehill and Harrop say further[44] that, in cases complicated by diarrhea, they consider protamine zinc insulin less safe than unmodified insulin because of variable absorption of food from the bowel. Two of my series (#23877, 103288) have suffered from extreme diarrheal conditions, but have been stabilized and maintained under good control with protamine zinc insulin. Sherill and Cope feel[45] that control with protamine zinc insulin offers no advantage over an essentially normal balance obtained with unmodified insulin. Jackson and Boyd concur[39]. Patients whose diabetes is severe are difficult to treat successfully on any regime. This is particularly true, in so far as lack of improvement from the use of protamine zinc insulin is concerned, of those patients treated with unmodified insulin for many years[6]. Allen intentionally selected[46] a large proportion of cases whose sugar level was most labile, and found that he was unable to satisfactorily regulate their diabetes with protamine insulin alone or with protamine insulin in conjunction with unmodified insulin. Campbell agreed[47] that some cases were attended with extreme difficulties, but said that with longer effort he had obtained a satisfactory balance in all cases. Smith suggested[48] that a glycogenic function adapted to the more acute effect of unmodified insulin was slow in adaptation to the more gradual effect of the newer insulin. The margin of safety is smaller with protamine zinc insulin than with unmodified insulin when hard physical work is done[34]. Five of Joslin's patients abandoned the use of protamine zinc insulin because of reactions following exercise[49]. He reported that some 3 per cent of his patients had returned to regimes with unmodified insulin exclusively, because it seemed especially suited to occupational or other factors. Reactions after exercise caused Mosenthal[24] to abandon the use of the new insulin in some cases. Wilder reported[27] only one patient well started with protamine insulin who had returned to a regime with unmodified insulin. She had been splendidly controlled thus, and was unable to recognize the onset of reactions from the newer insulin. I have one patient who still takes unmodified insulin exclusively. He is excellently controlled by diet, with 15 units of insulin three times daily. An attempt to change his routine to one with protamine zinc insulin has been made twice, but he has failed to cooperate for more than two or three days, and has reverted to the use of unmodified insulin.

ADVANTAGES

In general, there is a delightful degree of accordance as to the value of protamine zinc insulin. It is almost universally admitted that it possesses certain advantages over unmodified insulin in the treatment of diabetes mellitus. Rabinowitch observed[7] a diminution of the bilirubin content of the serum; the blood cholesterol was also reduced when it had been high under previous treatment. Several workers have noted[30,41,50,51] that the enlarged livers of diabetic children and young adults diminish in size. Fewer injections are required to maintain a satisfactory level of sugar in the blood; a smaller number of units is usually required; night doses of insulin are eliminated; there is increased ability to store glycogen; there is a gain in sugar tolerance; reactions are fewer and less severe; the general health of the patient is improved; malnourished patients gain weight; strength is increased;

patients have better general ability to carry out their daily activities; the incidence of acute complications is reduced; possibly there is a reduction in the incidence of coronary occlusion and of cerebral vascular accidents; necessary surgical intervention can be carried out more safely; it is hoped that the more constant control of the level of the blood sugar will do much to prevent the development of arteriosclerotic complications[6,12,16,17,22,23,27,32,41,42,48,52,53]. With protamine zinc insulin, diabetic patients live more comfortably, more safely, and with less inconvenience to themselves and to their families.

SUMMARY

1. A brief review of progress in the treatment of diabetes mellitus with protamine zinc insulin is presented.

2. Simple procedures which were used to transfer patients from a regime with unmodified insulin to one with protamine zinc insulin, and to inaugurate protamine zinc insulin therapy in patients not previously treated with insulin, is outlined.

3. An analysis of results obtained with 209 patients, 125 of whom had been treated previously with unmodified insulin, is given.

4. Over 82 per cent of the patients have excellent or good control of their diabetes.

5. Less than 4 per cent of the patients receive unmodified insulin in addition to protamine zinc insulin.

6. Among other symptoms indicative of hypoglycemia, the occurrence of vertigo is mentioned.

7. Complications from the use of protamine zinc insulin, and objections to its use, are discussed.

8. Advantages derived from the use of protamine zinc insulin are stressed.

10515 CARNEGIE AVE.

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Late Diagnosis and Fatal Pulmonary Tuberculosis In a Public Health Clinic*

DAN MORSE, M.D.

THE efficiency of a tuberculosis control program can, to a great extent, be measured by the number of cases of tuberculosis discovered in the early stages. Not only does the delayed diagnosis often rob the victim of his chance to get well, but permits him to roam about the community unsuspectingly spreading his affliction to others.

From year to year more early diagnoses are made, due chiefly to improved laboratory facilities and to the use of modern case finding methods. But still there are altogether too many patients whose disease is not diagnosed until it has reached a hopelessly far advanced stage, even though these individuals may give a history of a long illness with characteristic symtomatology.

The medical and social histories of 100 hopelessly far advanced cases, who have never been previously diagnosed before their first appearance at the Columbus Tuberculosis Dispensary, have been carefully investigated to discover, if possible, the reasons for the failure to make an earlier diagnosis. If the reasons can be determined, certain remedies will perhaps suggest themselves so that we can improve our methods, especially in the matter of publicity and health education.

The first prerequisite to be on this list of 100 is that the patients must be so hopelessly far advanced that we can, as far as it is humanly possible, assume that, regardless of type or length of treatment, none will recover. All of them have massive bilateral involvement. The second prerequisite is that these people must give a history whereby we can surmise that if diagnosed early, they would have had a chance to get well. This automatically eliminates overwhelming tuberculosis pneumonias and miliary disease. The reason that there are only 100 patients on this list is not that we could not have obtained five or six hundred if we had gone back in our records far enough, but in order to check on modern methods of diagnosis, we must be concerned only with recent cases. These 100 are the most recent 100 consecutive cases that meet the above requirements.

Seventy-six of these 100 are already dead. Most of the remaining 24 are desperately ill.

In comparing the far advanced hopeless group with all stages of adult pulmonary tuberculosis observed at the Dispensary in the past five years, we see that sex has no material influence in causing a delayed diagnosis. The percentage of males and females is proportionately the same in both groups. When considering the race, we see that more colored patients are diagnosed when hopeless, proportionately speaking, due undoubtedly to the fact that in the colored the disease generally progresses much more rapidly. The colored man has less time to think about obtaining medical advice than the white man, while his tuberculosis is still in the early stages. A study of the ages shows that there are more people over 45 in the delayed diagnosis group when compared to all cases of tuberculosis. The symptoms in older individuals are often of a milder character and less alarming than in the youth but the prognosis is just as bad.

The Author

● Dr. Morse, Columbus, Ohio, is a graduate of Western Reserve University School of Medicine, 1932; examining physician at Columbus Tuberculosis Dispensary; clinical assistant in medicine, School of Medicine, Ohio State University.

Sex, Race and Ages.

	Far Advanced Hopeless Per cent	All Cases of Tuberculosis Per cent
Male	60	58
Female	40	42
Colored	47	37
White	53	63
Under 15 years	1	2.6
15-25 years	21	28.0
25-35 years	28	28.8
35-45 years	19	22.2
Over 45 years	31	18.1

Symptoms.

Duration of the onset of symptoms until the diagnosis was made.

Average of all cases	9.58 months*
White	12.79 months*
Colored	6.32 months

*Exclusive of two cases of 11 and 12 years duration.

*Columbus Tuberculosis Dispensary.
Submitted April 7, 1939.

Symptoms in order of their frequency.

	No. Cases
Cough	100
Loss of weight	94
Sputum	93
Weakness	45
Fever	39
Hemoptysis	34
Dyspnea	23
Night sweats	21
Severe chest pains	20
Amenorrea due to Tuberculosis	3 out of 40 females

This information on symptoms was obtained mostly from the patients themselves but occasionally some member of the family corroborated the patients story, especially in those individuals who were extremely ill. These patients had many typical symptoms of pulmonary tuberculosis and had had them for some time. The average duration of onset of symptoms until diagnosis was twice as long in the white than in the colored.

Contributory causes for failure to be diagnosed early.

Feel well	67
Self treatment	62
Afraid to hear diagnosis	33
Fear of loss of income	25
Stubbornness	11
No-give-in spirit	10
Treatment by others	8*
Liquor	3
Transients	3
Contact who refused to have follow-up examinations	3
Feeble minded	1
Paresis	1
Christian Science	1
Incorrect diag. by chiropractor	1
Incorrect diag. by private physician	20

*Family, Neighbors, etc.

The majority of these patients had more than one single cause contributing to the failure to diagnose early. Most of this information concerning these reasons was obtained directly from the patients before they died, by questioning, and can be accepted as being fairly reliable. The word of the patient as to the mistake of a physician was not accepted as final but was always substantiated by further evidence, in some cases given by the mistaken physician himself. The Columbus Tuberculosis Society has a staff of eight trained tuberculosis nurses. Each nurse has worked in the same section of the city for many years and intimately knows the environment and social histories of the families under her care.

Sixty-seven per cent of these individuals did not think they were sick enough to consult medical aid. Sixty-two per cent wanted to treat themselves, and did so by using various patent medicines, cough syrups, vitamins, health foods, herbs, and most any remedy that they would hear or read about. Thirty-three of the 100 would not go to a doctor or to the dispensary because they suspected that tuberculosis might be present and they did not want to hear what they were afraid to hear. About one-fourth of the patients said that they were afraid that a physician might tell them to stop work for a while. Eleven per cent were just stubborn. Ten per cent thought that the brave thing to do was to keep going until they fell over. Eight were treated by someone in their family or by neighbors. Liquor contributed to the downfall of three. Three patients were out of the city when they became ill, and did not know what to do, so did nothing until it was too late. Three cases were contacts with active cases and refused to have follow-up examinations as advised. When they finally came back to the dispensary, they were hopelessly far advanced. Feeble mindedness, syphilis of the brain, Christian Science and incorrect diagnosis by a chiropractor were each largely responsible for one late diagnosis. The following chart gives incorrect diagnosis made by private physicians:

Number of these cases never consulting physician	80
Number of cases incorrectly diagnosed by physician	20

Incorrect Diagnosis Made.

Bronchitis	8
Lung Abcess	2
Influenza	2
Anemia	1
Pneumonia	1
Athletic Heart	1
Laryngitis	1
Epididymitis	1
Rectal abscess	1
Pregnancy	1
Pelvic inflammatory disease	1

Some of these patients only saw their doctor one or two times and then either didn't return or went to someone else—not giving the physician a chance to change his diagnosis which he might have done after further observation. The last five diagnoses were partially correct but the physician had focused all his attention on the more obvious complaint and had missed a more serious coexistent pulmonary tuberculosis. Chronic laryngitis, epididymitis and rectal abscess are frequently tuberculous and may accompany pulmonary tuberculosis. Pregnancy will sometimes mask a pulmonary tuberculosis by causing a temporary alleviation of symptoms.

SUMMARY

One hundred cases of pulmonary tuberculosis, which were not diagnosed until hopelessly far advanced, are studied with the purpose of finding out why the diagnosis was not made earlier.

All these patients had some typical symptoms

of tuberculosis and most of them had these symptoms for some time.

When compared to all cases of adult tuberculosis, there were proportionately more colored and more elderly individuals in these 100 delayed diagnoses.

Eighty of the 100 had never consulted a physician previous to their appearance at the Columbus Tuberculosis Dispensary.

Contributory reasons for the failure to diagnose earlier are, in order of their frequency,—not feeling ill enough to seek medical aid, desire to treat themselves, afraid to hear the diagnosis, fear of loss of income, stubbornness and treatment by some member of the family or neighbor.

3042 North High St.

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Gastrointestinal Aspects of Deficiency Disease

Inasmuch as food contains the essential vitamins necessary to maintain good health an inadequate diet frequently results in a deficiency disturbance of more or less severity. In this category may be classified those individuals whose food intake is inadequate through lack of appetite due to actual disease or as the result of functional disorders. Many of these individuals are the victims of food faddism. Moreover, imaginary or nervous digestive disorders or such factors as supposed overweight may lead them voluntarily to omit one foodstuff after another until the intake is inadequate to maintain normal health.

It is well that a word of warning be given to the physician himself, who at times may prescribe a diet which is so restrictive that the essential food factors may be entirely insufficient. This is known especially to occur in individuals affected with digestive disturbances of one kind or another and in those subject to allergic reactions.

The affections which occur most frequently as the result of inadequate food intake are pellagra, certain types of multiple neuritis and beriberi, not to mention many others with which we are all familiar.

In addition many incomplete or occult types of vitamin deficiencies due to inadequate food intake occur associated with indefinite clinical manifestations. These are often difficult to evaluate and when allowed to progress will finally eventuate into characteristic deficiency disease pictures. Attention has already been directed to the chemical measures employed for the detection of vitamin deficiencies. By these means diagnosis can be made when the deficiencies are in their early stages and measures can be instituted to inhibit their progress.—Julius Friedenwald, M.D., and Samuel Morrison, M.D., Baltimore, Md.; W. Va. Med. Jr., Vol. 36, No. 6, June, 1939.

Treatment of Migraine

Every case of migraine should be individualized. In the majority of cases a combination of therapies is more effective than any one procedure. In each instance the patient's general health should receive the utmost attention. Thin patients should be made to gain weight by taking cod liver oil and vitamin B preparations. A basal metabolism test is frequently indicated and judicious treatment directed toward the thyroid. Hemoglobin estimations should be made and proper therapy instituted if indicated. Neurasthenic patients with low blood pressures are often mild cases of adrenal cortex depletion and make splendid improvement on eschatin and high chloride intake. The latter may occasion a desire for large amounts of water which is unfortunately contraindicated in migraine. If thirst is aggravated by the chlorides they may be left off. It is interesting to note that water in addition to aggravating migraine will also precipitate an attack of epilepsy. This makes it highly probable that migraine and epilepsy are one and the same condition basically but differ in their components which are sensory in one and motor in the other. It is further interesting to note that eclampsia is but a combination of migraine and epilepsy. In the author's opinion this latter syndrome is pituitary in origin and that the so-called "toxin" of eclampsia is pituitrin.

Estrone, corpus luteum, adrenal cortex and antuitrins should be given as indicated and often must be continued for several months before benefit is noted. Errors of refraction should be corrected as far as possible but refractions should not be made shortly after an attack or while the patient is menstruating. Where there seems to be an allergic history appropriate studies should be made, preferably by one doing a good bit of allergic work as such studies need a very critical evaluation.—R. O. Halloran, M.D., Charleston, W. Va.; W. Va. Med. Jr., Vol. 35, No. 5, May, 1939.

In illness the physician is a father; in convalescence, a friend; when health is restored, he is a guardian.—Brahmanic Proverb.

Osteoarthritis of the Spine: Its Cost To Industry

LOUIS E. PAPURT, M.D.

SINCE my advent into orthopedic practice with its close association with industrial commission cases and its stepchild of arthritis, I have been impressed by the great prevalence and waste of osteoarthritis of the spine both economically and socially and its great cost to industry.

In a review of 2000 X-rays by Garvin at the Mayo Clinic, taken for conditions other than spinal symptoms, mostly G U X-rays, 67 per cent of the men and 40 per cent of the women over 50 years had osteoarthritis of the spine: 74 per cent of the men and 61 per cent of the women did not have any rheumatic or neuromuscular complaints. His conclusions that a single trauma cannot produce osteoarthritis is obvious to all but from a practical viewpoint it makes little difference because the courts have long decided that any incident which aggravates a pre-existing condition is responsible for the subsequent disability.

The number of industrial cases with disability caused by arthritis of the spine seen in our office in the last five years would be well over 100, but because of the great amount of work in determining the actual cost and because the effect might be one only of figures, I have chosen 10 unselected cases for this study. They are representative cases and I feel the figures and conclusions would not change materially by a larger series. The Industrial Commission through Dr. Sidney McCurdy, Medical Supervisor, has looked up the exact expenditures and has been kind enough to send them to me.

I shall briefly recite the history and costs of these with a slightly more detailed history of the three cases to be presented.

Case 1. Male, age 38—

Sept. 30, 1931, fell seven feet into a ditch. Original diagnosis: Sprain of back, lumbar region. Treated by rest in bed for three weeks and a long course of physio-therapy. X-rays show spur formation of mild character.

Cost—compensation award:

Temporary total to 7-17-32 Temporary partial to 10-30-38 Total		$3,442.04
Medical expenses:		
Doctors	$275.40	
X-rays	50.00	
Brace	35.00	
Traveling expenses	16.86	376.26
Grand total		$3,819.30

Read before the Industrial and Orthopedic Section of the Academy of Medicine, Cleveland, February 15, 1939.

The Author

● Dr. Papurt, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1924; fellow American College of Surgeons; American Academy of Orthopaedic Surgeons; diplomate, American Board of Orthopaedic Surgery; member Clinical Orthopaedic Society; senior assistant, department of orthopaedic surgery, and clinician in charge, orthopaedic outpatient dispensary, Mt. Sinai Hospital, Cleveland, Ohio.

Case 2. Male, age 49—

June 6, 1932, slipped and fell striking his back. Original diagnosis: Sacro-iliac strain and separation. Treated by bed rest for two months and received physio-therapy. X-rays immediately after injury reported negative for fracture but re-check showed definite hypertrophic changes.

Cost thus far—compensation award:

Temp. total to 9-5-32		$ 216.97
Tempt. total 7-27-35 to 3-29-36		666.61
Temp. partial 3-30-36 to 12-26-37		1,274.00
Temp. partial 12-27-37 to 4-30-39		840.00
Medical expenses:		
Doctors	$240.80	
Hospital	8.49	
X-ray	15.00	
Brace	62.50	326.79
Grand total		$3,319.37

As you will note, claimant will receive $8.40 per week until April 30, 1939. This will probably be extended until he receives the maximum of $3,750.00.

Case 3. Male, age 56—

Dec. 13, 1935, slipped and fell. Original diagnosis: Strain of muscles while trying to prevent a fall. X-rays two days after injury showed an extensive osteoarthritis. Treatment indicated—rest in bed, heat and brace.

Cost—compensation award:

Temp. total to 12-13-36		$ 991.07
Medical expenses:		
Doctors	$435.60	
Hospital	404.25	
Nursing	12.00	
X-rays	35.00	
Med. Sup.	56.19	
Brace	40.00	
Physio-therapy	32.00	$1,075.44
Grand total		$2,066.11

It is interesting to note that the medical expenses exceeded the compensation yet the grand

total is less than most cases. Did this man get well faster because he received more adequate medical treatment?

Case 4. **Female, age 55—**

Oct. 5, 1936, helped pull a pushcart filled with grape baskets (500 pounds). Original diagnosis: Subluxation of upper dorsal and lumbar vertebrae. Sprained muscles. Treated by treatments and adjustments to back. X-rays show moderate hyperthrophic arthritis of the dorsal and a destructive arthritis of lumbo-sacral junction.

Cost—compensation award:		
Temp. partial to 9-3-39		$ 501.14
Medical expenses:		
Doctors	$ 58.50	
Brace	35.00	
Travel	5.72	99.22
Grand total		$ 600.36

Very probably compensation will be extended—as they usually are.

Case 5. **Male, age 42—**

July 2, 1935, slipped off of a shelf onto a pile of bricks. Original diagnosis: Strain of muscles of leg and abdomen and back. Treatment consisted of bed rest for five weeks. X-rays showed localized arthritis of 12th dorsal vertebra.

Cost—compensation award:		
Temp. total to 8-9-36		$ 744.66
Temp. partial to 7-24-38		510.00
Medical expenses:		
Doctors' fees	$183.00	
Hospital	16.71	
X-ray	70.00	
Physio-therapy	4.80	
Brace	7.50	
R X	1.25	
Traveling expenses	6.50	289.76
Grand total		$1,544.42

Case 6. **Male, age 46—**

Oct. 14, 1935, while lifting a heavy shovelful of dirt something cracked in his back. Original diagnosis: Low Back Strain. Treatment: back strapped. X-rays show moderate degree of hypertrophic arthritis.

Cost—compensation award:		
Temp. total to 3-31-36		$ 199.68
Temp. partial 8-10-36		149.71
Medical expenses:		
Doctors' fee	$ 73.50	
Hospital	5.65	79.15
Grand total		$ 428.54

Case 7. **Male, age 30—**

March 7, 1935, cranking truck, felt a crick in back. Original diagnosis: Strain of muscles of left lower back over sacro-iliac joint. Treatment: back strapped, electric treatments. X-rays show osteoarthritic changes of dorsal and upper lumbar vertebrae.

Cost—compensation awards:		
Temp. total to 6-20-35		$ 166.07
Temp. partial to 3-1-36		449.43
Temp. partial to 10-4-36		232.00
Medical expenses:		
Doctors' fee	$105.50	
X-rays	55.00	
Brace	30.00	
Physio-th	20.40	
Dentist	23.20	234.10
Grand total		$1,075.60

This case is still in dispute and in my experience disputed cases are won 95 out of 100 by the claimant, and I am sure that the cost will double itself before this case is closed.

Case 8. **Male, age 55—**

One glance at this patient is sufficient to realize that he always made his living with his back. The records show that he did so steadily until February 22, 1934, when he fell 18 feet from a ladder. He was in the hospital for a few days and then sent home. The original diagnosis was sprain and contusion of lower lumbar region. Only anteroposterior views were taken and were reported negative. Subsequent X-rays showed extensive arthritis of the spine and a deformity of the second lumbar vertebra, probably a compression fracture. Treatment consisted of bed rest for six weeks. Later he was given a brace but any attempts at metabolic regulation have been unsuccessful and patient has remained a permanent total disability.

Cost thus far—compensation award:		
Temp. total to 1-6-38		$3,750.00
Temp. partial to 6-26-38		458.75
Temp. partial to 7-23-39		1,045.52
Medical expenses:		
Doctors' fee	$ 64.80	
X-ray	45.00	
Hospital	9.00	
Brace	60.00	178.80
Grand total		$5,433.07

He has been declared a permanent total disability and will receive compensation of $18.67 per week as long as he lives.

Case 9. **Female, age 29 at time of injury—**

Dec. 23, 1933, she slipped on a piece of wax paper and fell on her buttocks. Her back was strapped and she was given physio-therapy. X-rays showed osteoarthritis. She received no relief and later a plaster cast was applied, diet and dental extraction done. There was improvement but as so often happens after delayed treatment physio-neurotic element crept in and the patient has never returned to work.

Cost—compensation award:		
Temp. total to 11-30-35		$1,365.42
Temp. partial 4-16-39		1,056.86
Medical expenses:		
Doctors' fee	$356.30	
Hospital	55.23	
X-ray	40.00	
Brace	58.50	
Travel	6.00	516.03
Grand total		$2,938.31

Patient is still receiving $6.00 per week and will probably continue until she receives her maximum partial award of $3,750.00.

Case 10. Male, age 41 at time of injury—

On September 11, 1926, while attempting to lift and carry about 500 pounds of lead pipe, he bent down and got a sudden "crick in his back" and then could not stand up straight. He finished work that day but could not go back to work for nine days. On November 3, 1926, while leaning over and pulling on a valve, the same sudden pain came back. He went to a chiropractor who gave him a few adjustments with some improvement and he returned to work on November 21 and worked continuously until December 25 when he got another attack of pain in the back and stayed off duty until January 3, 1927. He then worked from January 4 to February 5 when his back again became lame. Then he stayed home until March 13, 1927. After this he returned to work up to September 26, 1927, when he layed off on account of backache until October 5. Then he worked from October 5 to December 5 and had to remain at home until December 18. He worked from December 18 to February 9, 1928, when his back became much worse, and he was again treated with 35 treatments from an osteopath. He then consulted a doctor who gave him a belt, and then he has been on light duty ever since April 9, 1928. X-rays showed an extensive arthritis.

Cost—(estimated):		
Compensation award		$2,800.00
Medical expenses:		
Doctors' fee	$220.00	
X-rays	45.00	
Brace	60.00	325.00
Grand total		$3,125.00

The patient is still receiving $4.00 per week and will do so until $3,750.00 is paid in full.

SUMMARY OF CASES

There were eight men and two women—which is the probable ratio usually found—the average age being 44.1 years, which definitely puts the patient in the hypertrophic age. The average cost was $2,435.00. Most of the cases are still receiving compensation which I am sure will raise the average cost to about $3,000.00.

The average doctor's fee is $201.00—the lowest being $58.50 and the highest $435.00. The average X-ray fee was $35.00. The average hospital fee, $50.00; however, if we exclude the one hospital bill of $404.00, the average hospital fee would be $12.00 which, to my mind, is an indication of the lack of adequate treatment and study that these patients receive.

CONCLUSIONS

One will note that in practically all these cases the original injury was of more or less minor nature. Secondly, that even after X-rays were taken, an adequate diagnosis was not made. For this I blame in part the radiologist. When a patient is referred to him with the history of injury, he reports "no evidence of fracture or dislocation" and makes no mention of hypertropic change because as he usually states, "everybody has them". I feel it is the radiologist's duty to describe these changes and allow the clinician to draw his own conclusions as to the evaluation and effect upon treatment.

The average doctor fee indicates that the physician for most part is satisfactorily paid with rather little efficacy in reducing the disability.

As a final conclusion I feel that when an individual of 40 and over falls down or strains his back and the immediate X-rays show arthritis, we can almost safely say to the employer in Ohio that the injury will cost industry from $2,500 to $3,000.

When one considers that probably 75 per cent of the doctors see at least one such case a year, one can see that the figure will run quite high.

PREVENTION

What can we do about this? How can we prevent these cases or the prolongation of disability? The laborer with spinal arthritis is by his very occupation an industrial hazard and is exposed to the danger of accidental disturbance of his arthritic condition. He is easily fatigued and easy prey to minor accidents. There is no question that sprains and injuries of a minor importance to a normal spine become disabilities of greater or lesser duration, varying from weeks to total permanent disabilities. Eighty per cent of back complaints over three months' duration in the absence of fracture show hypertropic arthritis.

PREVENTION OF INJURY IN ARTHRITIS

Shall a routine and periodical radiological study be made of laborers in the heavy industries or in those industries in which any degree of back sprain is involved?

This would probably be a very costly procedure but for the $25,000 that these 10 cases outlined tonight cost, certainly a great number of X-rays could be taken. Studies have been made by one of the Akron rubber companies and they felt that arthritis of the spine was not a sufficiently costly factor to warrant the cost. Let us assume that we took these X-rays. Shall we say to the man with positive findings that he cannot work at his trade or occupation? Shall we deny a man the right to make a livelihood if he has reached a certain age? As an industrial commissioner of a large state said, "such employment examination would result in an employment junk heap". Anyway, I think I can leave it to your imagination as to how far the employer would get if he tried to tell the unions who shall work at a certain occupation and who shall not, especially if it were not based on symptoms but rather on incidental findings.

On the other hand, patients with a known disease, warned of their condition and dangers, would probably be more careful and submit to less hazardous occupations at a sacrifice of wage.

Many employers have worked this out satisfactorily in cardiac and hypertension patients and other physiological hazards.

From the foregoing it will be seen that the prevention of injury in the arthritic is well nigh impossible and that although osteoarthritis is an industrial risk, the occupation or industry will have to shoulder this risk.

The vital thing that is therefore left to us is the prevention of disability or the prolongation of this disability. This I believe begins not with the doctor but indirectly with the employer, and more directly with his foreman. Too often the foreman will belittle the claimant's injury, advising him to take a half-hour's rest and then return to work. This he does either because he needs the man on the job or has been instructed to keep down compensation costs. Too often the employer will not allow the injured workman to return to light work until the workman's confidence has been restored, but will insist upon his returning to his former occupation so that the case can be closed. A sympathetic foreman and employer can do much to prevent the prolongation of disability.

The figures indicate that the doctor is getting adequately paid for these cases: $200.00 average for what seemed a minor injury at first, is sufficient and I believe that the doctor ought to be doing a better job. Far too often we are prone to listen to a story of minor injury, punch the back a bit and strap the patient, and if the X-ray is reported negative for fracture, tell the patient his injury does not amount to anything,—only to find months later disabling factors that have a marked irreparable influence upon the worker's productivity as a wage earner.

The doctor should be sympathetic with the patient: take the patient in your confidence, try to explain the status to him and assure him that if he cooperates in the proper treatment, his disability need not be great or prolonged. Much more is to be gained by rest and diet, general hygiene, correction of metabolic disturbances, removal of infection and vaccines—than having the patient return week after week for heat treatments until the patience of both the patient and the industrial commission has run out.

Today our profession is in the limelight and is held strictly accountable for its shortcomings and it behooves us to protect our position by affecting an adequate diagnosis and treatment of every case of injury to the spine. It is upon the first medical man who sees an injured spine that much of the responsibility of the after results fall. Strapping the back and urging the patient to return to work as soon as possible causes much of the later difficulty. Frightening the individual or giving the impression of a serious injury or condition, is just as bad or worse and should be avoided. The psychological character of the individual must be taken into consideration and if you can impart to the patient the feeling of having been well cared for, his inclination to return to work will not be lost.

There are many points in osteoarthritis of the spine and its industrial hazard and disability that have not been touched: viz: etiology, the pro and con as to aggravation by trauma, the medicolegal aspects, the adequate treatment, the place for fusion of spine in osteoarthritis, etc., but it seems to me the tremendous cost of this condition to industry behooves the employer and the industrial physician to do something about it. I cannot come to any conclusion in a definite way except to suggest that we make an effort to obtain more positive medical and statistical information of the subject. Twenty years ago Sever made this suggestion before the American Orthopedic Association, "I believe that the American Orthopedic Association should go on record or at least discuss the question of hypertrophic arthritis of the spine in relation to industrial accidents. Can trauma cause arthritis as we see it; does it aggravate quiescent disease; what relation has its occurrence to compensation claims, etc."?

To my knowledge neither the American Orthopedic Association nor any other medical or social organization has looked into this problem. Perhaps we can get the government to make it a W.P.A. project.

1304 Hanna Bldg.

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Evidence of neglect in using medical services for the sick and to protect the people's health, as published by the federal government, appears to me to be unconvincing and unsupported by adequate facts.

The assumed conclusion that any substantial portion of those claimed to be at present unable to command medical services for sickness and health, would by the proposed large expenditures be less often sick, or sick for shorter periods, or would have any significant improvement in their life expectancy or freedom from preventable disease, is illusory and unwarranted.—Haven Emerson, M.D., New York City; N. Y. State Jr. of Med., Vol. 39, No. 10, May, 1939.

Importance of Mental Hygiene in the Management of the Allergic Child

JONATHAN FORMAN, M. D.

ONE of the most important phases of the management of the allergic child is the development of sound viewpoint towards his impairment. The practice of sound mental hygiene in these cases requires a deep and sympathetic understanding of the little patient and his problems by the attending physician and full cooperation on the part of the parents. It is a process of education in the broadest sense—a process by which he is led to look squarely at his limitations without feeling sorry for himself in the least. To reason with such a child is futile. To argue is useless. To shame him is cruel. Above all to coddle him is fatal. His education is determined by a careful study of his personality and the nature of his existing allergy. At first, unusual strains must be removed from his life just as offending allergens are withdrawn. Then a tolerance must be induced to those social factors involved in such personality living with its fellows.

It is true that allergy is but one of the causes for instability of the nervous system. What we are about to say applies to all allergic children and to many others. All physician's offices are filled with nervous, immatured, unstable children, now grown to be adults, who come for help because they are breaking under loads which are too great for them to bear. Yet these very loads would seem light to the normal mind. These personalities are simply inadequate to the responsibilities of modern life. We physicians in our attempts to help too often only place additional fears of this and that disease, all of these added to childhood fears, which have never been overcome, to devastating experiences in adolescence, to deep resentment against Nature for their limitations and suffering, and to misadventures in vocational efforts give us a problem that is most difficult to solve. We can often get such a patient safely out of the present mess into which they have gotten their lives, only to have them snap under the next strain.

It is this background of personality which so often defeats us when we undertake to treat the adult with migraine, mucous colitis, chronic asthma, or urticaria. Our allergic management, sound as it is, will not succeed unless we can rebuild the patient's outlook on life. Sooner or later, we awake to the fact that in their very souls they do not wish to get well, and that they are getting all of the fun which they have in life from their sickness. It is, I take it, the pleasures of the death wish drawn out into a constant pain sensuality. It is up to the physician to make over mental attitudes which have become fixed by years of bad habits and improper adjustments to life.

Too often, the mother of the allergic child is to blame for such a situation. She sensitizes his mind through over-protection just as surely as his allergic body becomes sensitized through over-exposure to foods, animal emanations, pollens, etc. Over-protection is not so bad when the mother concerns herself only with physical injuries such as cold air, drafts, and infections as it is when she protects him from decisions. Nevertheless physical over-protection must be warned against for, unless we want his soul damned through introspection, we must let him do the things that other children do. In this way, he will learn his limitations and come to accept them without cursing the God who made him. It is true that he must be guided not to want hairy pets, to want to swim in dirty pools, and to long to work in some dusty occupation.

The real tragedy comes when the over-protection develops an overwhelming fear of self-determination, which from birth begins a devilish moulding of the little mind. This fear of self-determination compels some mothers, especially of only one child or of one very sick from his allergies, to cultivate within the child an absolute dependence upon her for every decision, no matter how trivial. The child thus reaches the years of discretion unable to make up his mind about the simplest matters. He wants to eat his cake and have it too. For him there has always been two pieces and no need of a decision. The smaller the family the greater the danger of maternal domination. The child must learn to make those decisions which are so necessary to a normal life. There is no escaping the fact that happy, healthful living consists in selecting from the realities of life the ones which give us the most satisfaction and independence. Such children remain infantile, immature in mind, unable to recognize the limitations which life has imposed upon them and neither happiness

One of a series of editorial summaries on the management of certain diseases.

nor health can ever be theirs. Their whole existence becomes a series of attempts to escape from the realities of life. Thus a mother's love in its highest ecstasy blights or too often crushes the soul within her offspring with a cruelty that she never for a moment intended. These mothers are not necessarily ignorant; more are well educated and many are looked upon as cultured. They have merely instinctively over-reacted to a small family, cramped quarters, and a sick child.

We have indicted the mother of the allergic child more than the father for he is less apt to be harmful, because he is less responsible. In the first place, the father does not nurse the child. In the second place, he sees infinitely less of their children than does the mother. Finally, only too often is the mother actually, although unconsciously, jealous of the father's influence. The worst possible combination for any child and especially an allergic one is to have a sickness which causes visible suffering and requires nursing and constant attention such as a weeping, extensive eczema or an asthmatic paroxysm; a mother who grows fussier and more dominating; a father whose interests are in everything except the rearing of the children; and, a horizon in which there are few if any rivals especially of his own sex and near his own age.

Other relatives are sometimes dangerous such as a doting grandparent or a childless aunt or uncle but only in so far as they take the place of the mother and while the child is still of the impressionable age.

But it is not only in his emotional self-management that the allergic child with his unstable nervous system finds himself strained to the danger point. He is also one who reacts to the ordinary stimulations of his surroundings which would not affect him at all if he were a normal child. Frequently, he is serious-minded, overconscientious, apprehensive, and anxious to please. Teachers and parents both overload him because he does his tasks so well, is so eager to please, and uncomplainingly takes on any responsibility that they may expect of him. If his winter asthma has kept him out of school most of the time, he is encouraged to make it up in a few weeks during the summer when he should have been out-of-doors—storing up sunshine for the coming winter as well as learning to play with other children. If he is free of trouble for a few weeks, then music lessons, Hebrew school, public speaking, art classes, or dancing lessons are piled upon him using up his leisure hours and his reserve energy. The schools today emphasize the qualities of leadership in their students and this is as it should be if only someone in authority knew something about the constitutional endowments of those whom they wish to feature. The allergic child should never be asked to carry a load of activities which make him uncomfortable, no matter how bright or intellectually precocious he may be. It requires nice discrimination on the part of every one to determine this point and so not deprive him of activities that will help him reconcile himself with his fate. Public speaking, spelling bees, dramatics, contests for academic prizes are much harder on him than they are the ordinary non-allergic child. He dreads the embarrassment attendant upon failure in such things much more than the non-allergic child. He is inwardly consumed with the fear of failure but in his desire to please goes on uncomplainingly with what he conceives to be his duty. This is why we are so often confronted in the allergic child with the sudden appearance of spasm of the muscles, suggesting St. Vitus dance, or with stuttering. So often in fact that certain British physicians have suggested that the cause of these things might be the allergy itself. While I personally prefer to think of them as both coming from the underlying malnutrition, it is generally agreed that the mechanism of their production is as here outlined. Again such crises in the overburdened allergic child will result in bed-wetting, loss of appetite, irritability, nervous fears with fatigue, and general restlessness.

Careful physical examination reveals only the allergy and an improper state of nutrition either a roly-poly youngster or more often an obviously undernourished one. The parents do not know these things. They, of course, are ambitious for their child but are usually quite willing to contract their plans for the child to suit the necessities if they are presented in terms of health.

The physician not being able to find anything organically wrong with the child can only suggest that he be withdrawn from school or given a change of scene. It should be emphasized here that under no circumstances should the patient be allowed to sit in on the discussion of his case that must take place between the mother and the physician. If he is, he will begin to focus his attention upon himself, his allergic impairment, and his "nerves". It may become necessary to take him out of school but, in most instances, it is a most unwise step. It focuses his attention on his impairments. It gives the sense of having failed his best friends—his mother and his teacher. It embarrasses his sensitive soul before his schoolmates against whom too often his only defense has been his classroom accomplishments. It is usually far better not to give him anything new to do outside of school and to take all of the other strains off of him and keep at his school work with a sympathetic teacher easing the load there rather than withdrawing it. In this way, too, he will have his summers to replenish his

energy reserve and not burn what little he has trying to make up school work.

Careful attention should be given to planning for his summers. He should be turned out to pasture so to speak like many another young animal. Summer camps are often too well run for him. The regimentation of time and effort in these only serve to drive him into himself instead of bringing him out. If arrangements can be made to put him in a small country village where he can learn to play with other children whose viewpoint is not as sophisticated as his home associates, it will prove an ideal solution to the problem provided, of course, that due recognition is given to the dangers of highly antigenic substances such as horse dander and feathers.

It is pretty generally agreed that neuroses of all kinds including those that are implanted on an allergic child are futile attempts at social adjustments—an attempt to meet life's difficulties by finding an escape from the world of reality. They are, as Wechsler so aptly puts it, "the penalty for the unsuccessful attempt to grow up".

In addition to the manifestations usually listed, there occur in these people other seeds of unhappiness such as an overdevelopment of the instincts and of the senses. They become self-admiring, self-absorbed, self-pitying. Marriage for them is almost certain to be another in a long list of failures. Jealousy and hate become powerful weapons in their hands. Sensuality becomes their dominant characteristic. This begets excesses of all sorts—alcoholism, drug addiction, and tendency towards self-destruction which may suddenly end in suicide or be drawn out in self-torture over years.

In brief then, the health problem of the allergic child is the same as that of the child who is crippled in that he must be taught to get along with his impairment and lead a normal healthy life, without being self-conscious about it. This is an education process that requires intelligent cooperation and self-restraint on the part of the parents, a high degree of skill and sympathetic understanding on the part of the teacher, and a personal physician who knows the little body's limitations—what it will stand and what it will not stand—and tempers his advice and his prescription to meet the individual needs.

Of 8,654 veterans of the World War hospitalized for tuberculosis in six months, 71 per cent were far advanced, 23 per cent moderately advanced and only 6 per cent were minimal. Matson, R. C., U. S. Vet. Ad. Phps. Conf. 1938.

The responsibility of the university is confined to ensuring a certain development of mind and imagination in its graduates.—Allbutt.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

CASE-FINDING IN PUBLIC SCHOOLS

1. Question—How valid is the tuberculin test? May we assure parents that the positive or the negative reaction is absolutely correct?

Answer—The tuberculin test is one of the most reliable tests that we have for determining whether or not tubercle bacilli have at some time entered the body. If positive, it does not necessarily indicate the presence of tuberculosis, the degree of infection, nor the extent of damage done, if any.

For all practical purposes, exceptions to this statement may be ignored. They should not cause worry to parents.

2. Question—Which grades should be tested?

Answer—The ideal plan would be to test children of all grades and ages.

First Grade Pupils—In this group one is likely to find so small a number of infections as hardly to make the effort worth while on a very large scale. On the other hand, experience has shown that very young children with positive tuberculin reactions will serve as leads to a large number of open cases of tuberculosis that were active sources of infection.

Kindergarten—The same may be said of this group.

High School—The high school age is receiving special attention for several reasons. First, because of the high morbidity and mortality rate known to exist between the ages of 15 and 25. Secondly, because in the average high school a large percentage of this important age group is available under ideally-controlled conditions. More cases of tuberculosis infections are likely to be found in this age than in the lower grades.

3. Question—When is re-testing advisable?

Answer—All tuberculin-negative students should be re-tested at least once a year. All tuberculin-positive students should be re-X-rayed at least once a year, unless something abnormal is found, when the frequency of re-X-raying will depend upon the particular circumstances in each case.

4. Question—Is the Mantoux test so definitely superior to other tests that the question of choice may be ignored?

Answer—The Mantoux test is definitely superior to other tests because:

1. It is twice as sensitive as the scratch test of Von Pirquet.

2. It is an exact quantitative test.

3. The response when positive is more definite, and more prompt than in all other tests.

However, as a second choice, especially in the face of objection to the "needle", the Patch test may be used. The following are the objections to the Patch test:

1. It must be kept dry.

2. It must not be interfered with by the child.

3. Frequently when examined at the end of 48 hours, it may be negative, and require four days for a reading.

4. Under the best of circumstances it is at least five per cent less reliable than the Mantoux test.

5. The greater cost of each test would also become a financial problem if planned for a large number.

5. **Question**—What is the significance of different degrees of reaction?

Answer—Different degrees of reaction have no significance beyond the fact that they indicate different degrees of sensitivity. This has no bearing upon the question of the amount of infection or disease, and need not concern school administrators or even school physicians. It is better not to confuse the minds of parents with any attempts to interpret degrees of reaction.

6. **Question**—Should all positive reactors be X-rayed? Are there indications to warrant X-raying of negative reactors?

Answer—All positive reactors should, without exception, be X-rayed.

With reference to negative reactors, an X-ray is not necessary to exclude tuberculosis; but it is frequently advisable for certain special reasons, such as malnutrition, suspicion of heart disease, chest deformity, or recent non-tuberculous lung infections such as pneumonia, or the presence of symptoms of chronic bronchitis or pulmonary disease of non-tuberculous character.

7. **Question** on the accuracy of the paper X-ray film, is answered by defining the limitations of paper film, appraising its advantages and stating that paper films are quite satisfactory in the "sifting" process or screening out of abnormalities.

8. **Question**—Is the celluloid film infallible?

Answer—No. There are lesions in the lung so small and so translucent to the ray that they may not be demonstrable in *any* films.

9. **Question**—Assuming a positive reaction to the Mantoux, and a negative reading of a paper film, what should be told parents?

Answer—A positive Mantoux reaction, by itself, does not indicate that a person has tuberculosis. "If the tuberculin test is positive (red and swollen), it means only that tuberculosis germs have at some time entered the body. It does not tell how many there are, or if any damage has been done. It should not cause worry to parents.

"If the test is positive, the child's chest should be X-rayed to be certain that no harm is being done in the lungs. An X-ray examination should also be made of every member of the household to learn if the child is being exposed to an open case of tuberculosis. Frequently this may reveal other cases of tuberculosis before the victim is at all aware of the disease. If no one in the family has the disease, search should be made among the child's playmates or others with whom he comes in close contact. It is perfectly safe for a child with a positive reaction to mingle with other children,—for unless there are tubercle bacilli in his sputum, he cannot pass them to others. Tuberculosis often exists in a concealed form in unsuspecting persons, and it is important to make the discovery in order to prevent further spread of the disease."

The parents should also be advised that the tuberculin-positive student should be X-rayed regularly at least once a year so as to detect any evidence of reinfection as early as possible. If the tuberculin test is negative, no X-rays are necessary until a subsequent tuberculin test proves to be positive.

10. **Question**—Will you outline briefly the follow-up procedure for the average school district?

Answer—After a tuberculosis survey, the parents are advised in a general way as to the results, and instructed to see their family physician for further explanation of the same.

Parents receiving reports to the effect that the Mantoux test was negative are advised of the importance of having the children re-tested annually by their own doctor, as long as they are negative.

In the case of the child who had a *positive* Mantoux with a *negative* X-ray, the parents are advised to have the child X-rayed, at least once a year thereafter through their own physician. They are also advised to have all other members of the household X-rayed, and all children under fifteen Mantoux tested.

In the case of those children in whom the X-ray showed some abnormality, the parents are particularly urged to take the report of the findings to their family physician at once. He is to be further informed of the desirability of communicating personally with those conducting the survey, who should endeavor to cooperate with him to the fullest extent on behalf of his patient. For those who cannot afford private service, the facilities of the tuberculosis clinic should be made available.

With reference to the schools, plans are formulated for continuing these surveys so as to test all new admissions each Spring, as well as those previously tuberculin-negative.

It is advised that no child should be excluded from school until the X-ray reveals findings that would warrant it and no type of active case, communicable or not, should remain in school—all active cases require treatment.—A. E. Jaffin, M.D., The Jour. Medical Society of N. J., Vol. XXXVI, No. 2, Feb. 1939.

Highway Accidents

Case Record Presenting Clinieal Problems

HARRY L. REINHART, M.D.

TRAUMATIC injuries constitute a portion of the field of general medicine which is rarely popular with medical students or physicians in general practice. At least two major factors appear important in the evolution of such an attitude. They are the legal requirements and expense of X-ray examination, and the increasing specialization necessitated by extensive insurance and industrial relationships due to our changing concepts of social responsibilities. Specialists in traumatic surgery are largely confined to industrial centers and large cities. However, the general practitioner or surgeon in rural communities and smaller cities must continue to care for a large percentage of traumatic injuries. The incidence of such injuries has increased with the extension of machinery to rural communities, and the increase of automobile accidents. In recent years the increase in power, speed and numbers of automobiles, improvement of highways and increased accessibility of intoxicating liquors are factors which potentially increase the number and seriousness of automobile accidents. To these may be added a spirit of freedom from responsibility engendered by "liability insurance". This is illustrated by the retort of a young man, who when cautioned about his reckless driving, said "Oh, I'm insured!"

The following case history is taken from the records of a general practitioner and illustrates some of the medical, social and economic problems encountered in this field of work, especially in rural communities.

A physician, whom we will fictitiously designate for clarity of description, Dr. Wright and his wife and two guests were driving through a western state on a main U. S. thoroughfare about 3 P.M. on a summer afternoon and entering a small city of some 5,000 to 10,000 inhabitants. A warning sign indicated a "stop" street two blocks ahead. About one block ahead of this sign a large "stop" was painted across the road. In front of the doctor, a large truck and passenger automobile had stopped at the intersection behind which the physician stopped his car. The stop was sufficiently long for the physician to become somewhat curious as to what occasioned the delay when he noted in his rear vision mirror a car approaching. As he watched, the car showed no signs of slowing up and crashed into the rear of the physician's car. Although considerably shaken up, no one in the physician's car was actually injured. The occupants of the car which crashed into the physician's car were three young men. The driver of this car, we shall fictitiously designate as Mr. Crasher. One of the men, who was sitting in the front seat with Mr. Crasher was thrown into the wind shield, which was shattered by the impact of his head, and he suffered a lacerated wound of the scalp of his forehead. He was taken to a local physician, who applied an antiseptic solution and a small bandage and dismissed him as needing no further attention.

Dr. Wright meanwhile was endeavoring to gather witnesses, and get the local policeman to make an adequate examination of conditions of the accident and submit a written report to him for his protection. As most individuals are aware the state police are as a rule being well trained in the collection of data and handling of automobile accidents, but the city police of the average small community and many large cities are woefully ignorant of what constitutes an adequate investigation, which together with negligence of the public in collecting data and witnesses has probably resulted in many individuals suffering severe and unjust judgments.

The nature and circumstances of the accident as described were such that the physician could not account for it on any basis other than the influence of alcohol. It is well known that the main action of alcohol on the brain is depressant; that it results in impairment of attention, accuracy and judgment and that acuteness of perception and speed of execution are slowed, and self-criticism is diminished.

In this case, the failure to see adequate and prominent warning signals reflected the narrowing of the field of attention of Mr. Crasher. The condition of drowsiness so prone to develop as a result of fatigue from driving in the afternoon summer sun is accentuated by alcoholic indulgence, and even if sleepiness is not produced attentive consciousness of the subject under the influence of alcohol is usually occupied with subjective feelings and thoughts so that such an individual is not easily aroused by noises, lights, signs or movements in his environment. A second factor produced by alcohol is the instability and limpness of the knees and lower limbs, especially evident in standing and walking. As a result of this the driver under the influence of alcohol is less ready with the use of his feet on the pedals and less expert in his foot control of the gas, and usually tries to control the car by movements with his arms and hands only.

Careful inspection of the street in this case revealed no skid marks or evidence of the brakes having been applied. Furthermore, one of the bystanders came up to the physician and said he believed Mr. Crasher had been drinking, because he was a "little wobbly on his feet". Finally, inspection of the back seat of the car Mr. Crasher was driving revealed an empty

This is the forty-first of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

whiskey bottle and several empty "coca cola" bottles. Dr. Wright realizing the abilities, all too frequently demonstrated, of clever attorneys to protect the interest of a driver under the influence of alcohol, and the inability of testimony of competent members of the medical profession on clinical grounds alone to prove to the satisfaction of the court that such an individual was unfit to drive an automobile, suggested to Mr. Crasher that each of them as drivers of their respective cars, submit to a blood examination for the determination of the state and degree, if any, of alcoholic intoxication. Mr. Crasher protested that he was "not drunk". He admitted, as is usually the case, he had had a "beer or two, but he was not drunk", and with a spirit of forced bravado said he was willing to permit a physician to take some of his blood to prove "I am not drunk". This sense of self sufficiency is one of the most certain psychological results which alcohol confers upon its host and is a big factor in producing the pompous speeches, loud songs, vigorous quarrels, and fights of such individuals. In other words a spirit of "what man dare, I dare!" So Mr. Crasher, Dr. Wright and the local policeman went to a local physician to have their blood tested for alcohol concentration. Unfortunately the physician, whom they consulted had not heard of such test, had no facilities for the preservation of the blood or urine after it was collected, and did not know of any one who ran such tests. The local policeman was also entirely ignorant of such a test and did not want to call the state police, who are usually better informed in such procedures, and expressed the opinion that it was unnecessary since the empty whiskey bottle which had been found in Mr. Crasher's car was sufficient evidence.

The actual value of the examination of the urine, blood, spinal fluid, saliva or even breath of an individual for intoxication is well established. The determination of the alcohol content of any of these body fluids or breath should be conducted in conjunction with a thorough physical examination, and as such represents factual evidence which when positive has been almost universally sustained in courts where it has been presented. The outline and details of such an examination have been prepared by the National Safety Council, Inc., 20 N. Wacker Drive, Chicago, and is available to physicians requesting the "motor vehicle intoxication report". It includes such features as breath, color of face, mental state, unusual actions and coordination tests of eyes, balance tests, walking and turning, finger to nose test and speech. There is also a place for recording chemical tests of blood, urine and breath. It represents a complete outline for the examination of an individual suspected of intoxication and if the data is collected in full, presents sufficient evidence to substantiate in a practically incontrovertable manner the testimony any physician may be called upon to make on the witness stand.

In regard to the chemical examination of the blood, urine and saliva we believe that it constitutes an indispensable part of the evidence in such cases. Permission must be obtained from the subject or subjects for the collection and examination of urine or blood, but difficulty is rarely encountered as the innocent man has no objection and the intoxicated man will never admit he is drunk. These tests are conducted in Ohio in at least three places, probably more, namely in Cleveland under the Coroner, Dr. Gerber's supervision and the offices of the city police traffic squad—in Ashland by Dr. Gunn, and in Columbus at the University Hospital. The specimen of blood or urine should be collected in the presence of witnesses; the mouth of the container should be sealed with a labeled sticker, which should not be broken until it is opened for chemical examination. The best preservative and anti-coagulant for the blood is sodium fluoride, although potassium oxalate or sodium citrate are satisfactory if the analysis is conducted within 24 hours. The urine needs no preservative if the analysis is conducted within 24 hours. About 5 cc. of blood or 30 cc. of urine provide ample material for the examination.

The examination of the blood, although more difficult to obtain, is more satisfactory since it provides information of the condition of the patient at the time the blood is collected, whereas the urine provides information of the condition of the subject about half an hour previous to the time of collection; either urine or blood are reliable if properly collected, preserved and dated as to hour of collection and hour concerning which accurate information is desired. The results of the examination are generally reported as per cent of alcoholic concentration of the fluid examined. The alcoholic concentration of the blood is generally accepted as the standard for comparison. "An alcoholic concentration in the blood of 0.15 per cent corresponds to an accumulation of 6 to 7 ounces of whiskey in the body of a man weighing 150 pounds. Some persons who have the ability to carry their liquor well might have to drink as high as 12 ounces of whiskey before the level of alcohol in their blood would reach 0.15 per cent". A urine alcohol concentration of 0.20 per cent is generally accepted as the equivalent of a 0.15 per cent blood alcohol concentration. Subjects with a blood alcohol concentration of 0.1 per cent to 0.2 per cent are described as "delighted and devilish, emotionally unstable, manifesting some muscular incoordination and slowing of responses to stimuli". Such individuals are perhaps the greatest menace to traffic as they have little or no insight into their own limitations. Individuals with blood alcohol concentrations of 0.35 per cent to 0.45 per cent are usually "dead drunk" in a stupor or coma and present no traffic menace, while death may follow blood alcohol concentrations above 0.50 per cent.

"Highway traffic is conducted on a basis of

mutual confidence which assumes integrity of mental and muscular habits on the part of normal drivers and entertains the profound wish that the mentally abnormal would keep off the road". Legal means are available to keep such individuals off the road, but their execution requires the realization by the police, physicians, and the public at large of their individual responsibilities in doing everything possible to keep such individuals off the highways for their own as well as the protection of others.

Finally the responsibility for the injury of the man in car driven by Mr. Crasher rests with the party responsible for the accident. The type and nature of the injury, although apparently not serious judging from the superficial examination and report, is the character of the injury most frequently responsible for subdural hematoma (see editorial J.A.M.A., June 10, 1939) and in view of the frequency with which the diagnosis is overlooked, and the fatal outcome of subdural hematoma without adequate surgical intervention, recipients of such injuries should be kept under observation by careful "follow up" investigations or warned as to potentialities of such injuries.

Treatment of Gastro-Intestinal Disease

Belching is one of the commonest and most annoying symptoms of gastro-intestinal disorders. This eructation of so-called "gas," which actually is the sound produced by the swallowing of atmospheric air, is exceedingly distressing. In a large percentage of those individuals in whom we are unable to discover any direct cause, and even in those in whom treatment of a determined etiologic factor has not produced relief, the following method has been of great benefit. This is based on well-known procedures used in treating horses known as "crib-biters" and "windsuckers".

Williams accurately describes what occurs in horses: "The windsucker smacks his lips, gathers air into his stomach, extends his neck, arches his feet, and swallows air, blowing himself out sometimes to a tremendous size, producing colic and indigestion. A crib-biter may seize his manger or some other fixture, arch his neck, and make a belching noise due to swallowing air. After a time the abdomen becomes enlarged".

A horse is treated by putting lard on his manger, the taste of which he does not like, or by converting his manger into an iron one which is cold, hard, and unattractive, or by putting a double hitch on him to prevent him from sinking his teeth into the manger. More frequently the treatment consists of putting a large triangular bit into his mouth, which will keep it open, or placing a halter strap tightly above his cricoid. These last two measures prevent his swallowing. When the mouth is kept open, it is impossible to swallow.

What applies to the horse applies as well to the human, and the treatment for this type of belching can be accomplished in the following manner: A cork, size 16, is given to the patient and he is instructed to put it between his teeth and bite on it the instant that he has a desire to eructate. This makes him keep his mouth open and he cannot swallow air. This method has been most effective in the treatment of belching due to various etiologic factors, and especially so in the aerophagiac.—A. A. Aaron, M.D., Buffalo, N. Y.; Pa. Med. Jr., Vol. 42, No. 8, May, 1939.

Uses and Abuses of Roentgen Rays in Dermatology

The precautions which one should take before radiation is begun may be discussed under the following headings:

Preceding treatment.—Before instituting x-ray treatment, it is necessary that a detailed history of preceding radiation be obtained. In fact, it is unwise to administer further roentgen or radium treatment if a detailed report is unobtainable. It is also unwise to treat an area of the skin with x-ray or radium that has previously been treated with irritants, such as salicylic acid, resorcin, iodine, chrysarobin, or beta naphthol, etc. There should be a rest interval of at least two weeks, preferably a month, before using x-rays.

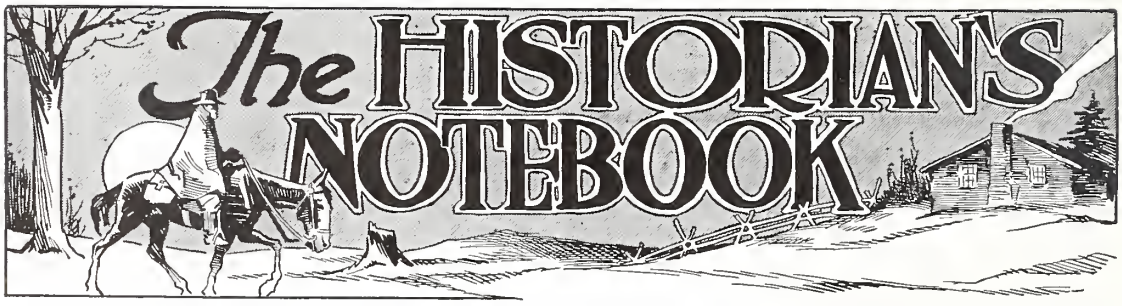
Concomitant treatment.—While a patient is being treated with radiotherapy, all irritants, including natural or artificial heliotherapy should be avoided.

Accuracy of treatment.—Voltmeters, milliamperemeters, and timers should be accurate and also in proper working order. Every installation should be checked, not only according to modern physical methods (measurement by ionization) but also biologically, and by skin effects. Guesswork has no place in the manipulation of such powerful physical agents, as x-ray and radium. Special precautions should be taken to avoid the exposure of normal areas, as well as such sensitive and delicate parts as the eyes, hairy parts, ovaries and testes. Large destructive doses on any portion of the body of a diabetic patient should not be given.

Blood counts.—In treating such generalized dermatoses as mycosis fungoides, leucemia cutis, dermatitis exfoliativa, etc., it is well to have routine blood counts done in order to prevent sudden drops and unexpected changes in the blood picture.

Age of patient.—Infants and small children are seldom if ever exposed to radiation. However, radiation is used for conditions like angiomas. It is advisable to avoid radiation, whenever possible, in the very young.

Unfortunately radiodermatitis has been seen most often following treatment of benign recurrent diseases. The most important of these are acne vulgaris, dermatophytosis, eczema, hypertrichosis, licen planus, neurodermatitis, nevi, pruritus ani and vulvae, psoriasis, tinea capitis, and verrucae.—Sadie H. Zaidens, M.D., New York; Med. Record, Vol. 149, No. 11, June 7, 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early History of Medicine in Hamilton

ALTA HARVEY HEISER, Hamilton, Ohio

FIRST RESIDENT PHYSICIAN

IN making a study of any phase of life in the early history of Hamilton, it is a rare treat to be able to trace something we have today directly back to its beginning. Nowhere may there be found a better example of this than in the history of the medical profession in Hamilton. We have today, in direct lineal descent from Dr. Daniel Millikin—the first resident physician—a great grandson and a great great grandson—Dr. Mark and Dr. Neil Millikin. The only break in a complete line of doctors is in the case of Major John M. Millikin, but his son Daniel, who was the grandson and namesake of Hamilton's first doctor, is the "Doctor Dan" lovingly remembered by those who knew him.

The second doctor to locate in Hamilton was Dr. A. Slayback, whose name still is a familiar one.

A few claims near Fort Hamilton had been made and occupied before the town was laid out by Israel Ludlow, in 1794. There were many sick and many who died before doctors were available. Almost everyone knew the common usages of "yarbs", and a few were experienced in a crude form of nursing. If any doctors stopped in Hamilton earlier than 1807, they were from among the large number emigrating from the East and South seeking places to locate, and did not tarry long.

CALLS ON HORSEBACK

Among the pioneers from New Jersey, who settled a few miles above the Fort and named their village Bloomfield (Trenton) for the governor of their native state, was Dr. Squier Littell. In 1802 he is said to have practiced throughout a circle of the country which had Cincinnati and Dayton on its circumference. There were no improved turnpikes—nothing but trails through the wilderness, and doctors made their calls on horseback. Doctor Littell weighed 350 pounds, which had its disadvantages for both horse and rider. It is said that he ordered a spring wagon suitably built, which was the first of the kind in this part of the country. Doctor Littell had no children, but he took as his own a niece, the daughter of Rev. Stephen Gard. She married Ezra Potter. It was Ezra Potter's second wife who was the mother of Ellis Miller Potter, but through the descendants of the Potters and Millers, Hamilton has a connecting link with Dr. Squier Littell, who sometimes doctored the sick of Hamilton before there were resident doctors.

Dr. Daniel Millikin came in 1807. He had studied languages at Jefferson College near Washington, Pennsylvania, as a preparatory step towards the study of medicine. He received instructions from Dr. John Bell, a prominent physician of Greensboro, Pennsylvania. While at that place he met Joan Minor, whom he married and took back to his old home in Washington county, where he began his medical practice. The healthful neighborhood did not offer the most promising prospects. Therefore, he decided to investigate concerning the prevailing idea that the best opportunities were to be found west of the mountains, in the new state of Ohio.

FIRST MILLIKIN HOME

It would be interesting to know just why Doctor Millikin selected Hamilton—possibly because of the fertile valley in which it was located and because of its reputation of being an unhealthy neighborhood without a physician.

Doctor Millikin's first home in Hamilton was a story and a half hewn log house by the river near the present Buckeye street. In the summer of 1808, he moved to the east side of what is now Second street, a short distance above Hea-

ton street. In 1819 he built a frame house near the northwest corner of High and Fourth streets. Here the family remained for about 18 years until they went to a fine new home on North Third street.

The above statements concerning Doctor Millikin are those of his son, Major John M. Millikin.



FIG. 1. Dr. Daniel Millikin, Hamilton's first resident physician, at the beginning of the 19th century and his career.

However, the son neglected telling that, in 1835, Doctor Millikin formed a partnership with his first cousin, Dr. Joel B. McFarland, who kept the office at Fourth and High streets while Doctor Millikin retired to his home on Millikin's island, later known as Campbell's island. He went for much needed rest, but did not withdraw entirely from his practice. The partnership lasted not more than two years. Before returning to Hamilton, Doctor Millikin built the Third street home, which is known today as the former home of Miss Joan Minor Kennedy, Doctor Millikin's granddaughter.

FIRST APOTHECARY SHOP

Dr. Daniel Millikin's brother Samuel also came to Hamilton in 1807. He studied under the doctor and lived with the doctor's family. However, he decided that he did not care for medical practice and turned his knowledge to use by opening Hamilton's first apothecary shop which, until 1814, was in Doctor Daniel's first home near the river.

Another brother, Robert B. Millikin, came in 1813. He, too, lived with and studied medicine under Doctor Daniel until he was ready to open an office. This was in 1817.

Doctor Daniel did hope to have one son follow his profession. His youngest son, Otho, started the study of medicine but could not feel that this was his calling. As his uncle Samuel had done, he became a druggist, in the late 1840's. Later years have brought other Millikins to become either druggists, dentists or doctors.

SECOND EARLIEST PHYSICIAN

Dr. A. Slayback, the second earliest physician, was in Hamilton for some time prior to December 12, 1814, at which time he was trying to collect from his debtors before leaving for Philadelphia. In connection with his practice he had had an apothecary shop on High street, opposite the public square. It was with Doctor Slayback that the little room next to Latham's tavern began its long career as an apothecary shop.

Whatever had been the occasion for Doctor Slayback's eastern trip, he was back in a few months, married Miss Amelia Hull and announced that he was ready to take up his old practice. He is said to have moved to Cincinnati in 1818.

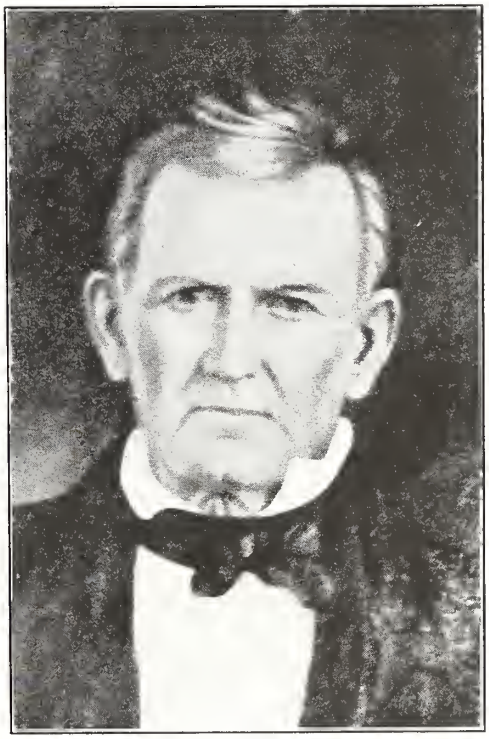


FIG. 2. Dr. Daniel Millikin in the late 1840's, near the close of his long service to Hamilton.

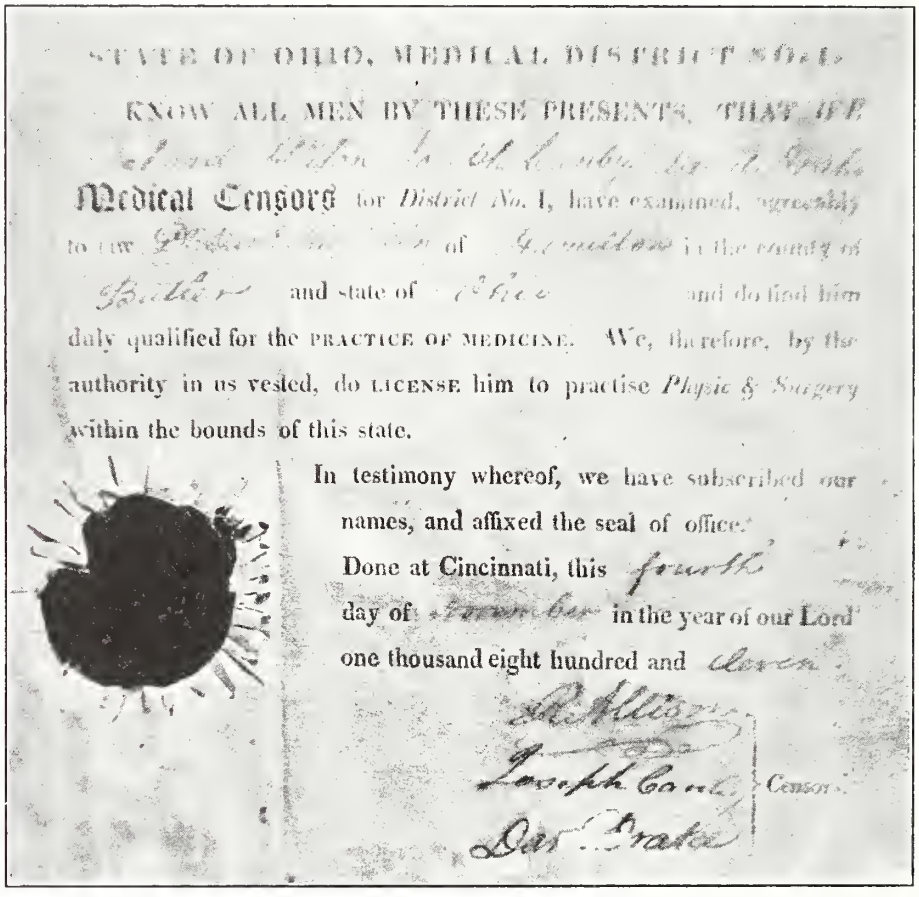
Dr. E. Ramsey from Philadelphia practiced physic and surgery in Hamilton from 1815 till 1818. At first he lived with John C. Kelsey on High street across from the public square, but in 1816 he opened an office in Captain Isaac

Falconer's tavern in Rossville. Doctor Gunn was a contemporary practitioner.

NO COMPLETE ACCOUNTS

The story of the early doctors is quite unsatisfactory. Trying to find them is like watching a moving screen on which the names are flashed briefly and in conflicting places. The newspapers gave authentic accounts but not complete ones. The mention of a certain doctor may be first made in a certain year and by some chance it is the present Second and Court streets. Doctor Greenlee died in December, 1817.

Dr. Robert B. Millikin began his long Hamilton practice in 1817. He conducted a drug store in Rossville and filled many offices of trust, being classed as a leading citizen until the time of his death in 1860. Although his descendants have not followed in his profession, they are still in Hamilton—until the sixth generation. His son Thomas was one of Hamilton's most able barristers, and others in lineal descent have taken


STATE OF OHIO, MEDICAL DISTRICT No. 1.

KNOW ALL MEN BY THESE PRESENTS, THAT [illegible]

Medical Censors for *District No.* 1, have examined, agreeably to law, [illegible] of [illegible] in the county of [illegible] and state of [illegible] and do find him duly qualified for the PRACTICE OF MEDICINE. We, therefore, by the authority in us vested, do LICENSE him to practise *Physic & Surgery* within the bounds of this state.

In testimony whereof, we have subscribed our names, and affixed the seal of office. Done at Cincinnati, this fourth day of [illegible] in the year of our Lord one thousand eight hundred and [illegible].

R. Allison
Joseph Canby } Censors.
Dan'l Drake

FIG. 3. License to practice issued to Dr. Daniel Millikin November 4, 1811, by R. Allison, Joseph Canby and Daniel Drake, Censors.

learned that he had been in Hamilton several years. Again, medical notices were given for men who came to try out the place, stopping at some tavern the while. In many cases these men located here and became prominent in their profession. Others were gone within a few weeks. Dr. Charles Este was in Hamilton about 1810. Dr. J. Johns opened an office at Jeremiah Creapin's tavern in 1818. Dr. William Greenlee is said to have come to Hamilton in 1814, but his first newspaper notice was late in 1816. He had an apothecary shop which, from circumstantial evidence, may be said to have been a short distance east of the southeast corner of prominent places in the professional or commercial affairs of their home town.

BROTHERS WERE DRUGGISTS

The three Millikin brothers of early Hamilton were all druggists and two were practicing physicians. In 1814, Samuel Millikin moved his shop from his brother's home to South Front street. The next year he combined his stock with the mercantile wares of Joseph Hough. They formed a partnership and opened a store at the southeast corner of High and Main (Second) streets.

Mr. Millikin handled the improved family medicines of a Philadelphia druggist who boasted

being the grandson of a celebrated Edinburgh doctor. He had worked out a remedy "for most any disease to which the human body is liable". Mr. Millikin could furnish a restorative dentifrice, Circassian eye water, toothache drops, itch ointment and infallible worm lozenges at fifty cents a vial. Vegetable balm of life and stomachic bitters were one dollar. Stomachic elixer of health and vegetable nervous cordial were a dollar and a half, and drops for gout and rheumatism, as well as balm of Iberia, sold for two dollars. Two dollars was a lot of money in those days. It is doubtful if many bottles of the rheumatic cure were sold, since among the helpful hints in the paper it was stated that a sure cure for this trouble was to rub the affected parts with oil taken from the top of a cask of pickled salmon. However, unless the grocer was kind enough to skim off some of the oil for his customers, the bottled drops may have been cheaper than a cask of salmon.



FIG. 4 The little log building (in the foreground) where Samuel Millikin and his partner, Joseph Hough, kept store until 1825.

EASTERNERS APPEAR

Year by year new labels appeared on the shelves of the apothecary shops. In 1815 two eastern gentlemen came with a store of goods which they agreed to sell at low prices. In addition to the regular line of medicines they sold chemical machines, dragon's blood, cowitch, milk of roses, bergamottered precipitate, pewter syringes, pomatum, trusses and smelling bottles. They did not drive the Millikins out of business, however, nor did they stay long.

In 1815, "Medicus" recommended washing in soapsuds to cure hydrophobia. Thus early were the antiseptic qualities of soap recognized.

In the early years of Hamilton's growth certain doctors were called to attend patients in the jails. They were probably appointed by the commissioners and paid from county funds. A few months before Doctor Greenlee's death in 1817, he took care of Peter D. Green, a "lunatic" confined in the jail. The next year Dr. Daniel Millikin was called under similar circumstances for John Johnston. There is no record of how many visits were necessary, but the doctor was paid two dollars for his services.

"Lunatic" is an awful word, and a crude jail was an awful place to keep one so sadly afflicted, but thus it was at that time.

Socialized Medicine

And now as to socialized medicine, which the Senator from the State of New York would, with the consent and support of the present National administration foist upon us; I have nothing but condemnation. When politicians and bureaucrats dominate the practice of Medicine in America, may a merciful God help us. The destruction of initiative, the regimentation of medical men, the abolition of incentive for research work and study, the destruction of ambition and a desire for careers—all of these ills and many more may follow.

Why Hitlerize, socialize, communize America and its citizens? Let the Senator from New York regulate his German Bund before attempting to socialize American Medicine to his liking. Like the little boy when asked how he liked spinach, replied "To hell with it!"; so say I with regard to socialized State Medicine.

With a heritage of which we may be proud, let us not commercialize our profession, remembering that the poor we have with us always and that "the quality of mercy is not strained", but let us not forget that "the laborer is worthy of his hire" and "if any provide not for his own, he hath denied the faith, and is worse than an infidel". Every physician should try to make provision for the comfort, support and education of his family. When we are incapacitated either by accident, sickness or age, there is no pension for us. We are superannuated without compensation and our accounts, our library, and our office equipment and good will have but little if any value as assets, when we cease to function.—Wm. H. Cobb, M.D., Goldsboro, North Carolina; S. Med. and Surg., Vol. 101, No. 6, June, 1939.

Correction in Historian's Notebook

Attention has been called by Dr. Harold N. Cole, Cleveland, to an error in the article "Contributions of Ohio Physicians to the Organization Work of the American Medical Association," by Robert G. Paterson, Ph.D., Columbus, in The Historian's Notebook of the May issue of *The Journal*.

On page 530 Dr. Torald H. Sollman, Cleveland, is shown as being a member of the Council on Pharmacy and Chemistry from 1935 to 1941. Dr. Cole points out that Dr. Sollman has been a member of the Council since its inception in 1905, and for many years has been its chairman. Dr. Tom D. Spies, Cincinnati, was appointed this Spring to the Council on Foods, for a term ending in 1944.

Do You Know - - -

Membership in the Ohio State Medical Association June 20 was 6,124, compared with 5,846 on the same date last year, and 6,128 on December 31, 1938, which was the largest membership in the Association's history.

* * *

Reasons for and against legislation requiring premarital and pregnancy tests for syphilis are outlined by Dr. John A. Kolmer, professor of medicine, Temple University School of Medicine and director of the Research Institute of Cutaneous Medicine, in the June 10 issue of *The Journal of the American Medical Association*, pages 2385-2391.

* * *

Dr. Russel G. Means, Columbus, is the new vice-president of the Ohio State University Alumni Association.

* * *

Dr. Sidney McCurdy, medical supervisor, State Industrial Commission, was one of the founders and a charter member of the American Association of Industrial Physicians and Surgeons which held its 24th Annual Meeting in Cleveland, June 5-8.

* * *

The new president of the Cleveland Academy of Medicine, Dr. Russell L. Haden, held the same title with the Kansas City Academy of Medicine 10 years ago.

* * *

If the death rates of 1900 had continued to prevail last year, there would have been 817,745 additional deaths in the United States.

* * *

Dr. Normand L. Hoerr has been appointed Henry Wilson Payne Professor of Anatomy and head of the Department of Anatomy of Western Reserve University School of Medicine, to fill the vacancy left by the death of the late Dr. T. Wingate Todd. Dr. Hoerr has been assistant professor of anatomy at the University of Chicago.

* * *

Dr. Elmer G. Horton retired on July 1 from the teaching faculty of Ohio State University College of Medicine, after 37 consecutive years on the faculty. For many years Dr. Horton was professor of hygiene. During recent years he also was chairman of the department of pediatrics and clinical professor of pediatrics. He expects to continue in the active practice of medicine in Columbus, specializing in pediatrics.

* * *

The average age of death of American physicians last year was 65.6 years, as compared with 65.4 years in 1937. Thirty-nine per cent died of heart disease.

Associates recently presented a testimonial to Dr. J. J. Thomas, Cleveland, associate clinical professor of obstetrics, Western Reserve University School of Medicine, who retired in June after teaching at Western Reserve for 43 years. He has been a member of the staff of St. Ann's Maternity Hospital for the same length of time.

* * *

Collecting butterflies and moths is the hobby of Dr. Charles J. Wehr, Bellevue. He has more than 10,000 specimens.

* * *

Dr. Lucy Stone Hertzog, Chardon, past president of the Ohio State Homeopathic Society, was the principal speaker at the banquet of the 73rd Annual Session of the Indiana Institute of Homeopathy held at Indianapolis recently. Dr. Hertzog discussed "State Medicine."

* * *

Officers of the Ohio Federation of Public Health Officers for 1939-1940 are: Dr. H. H. Pansing, Dayton, health commissioner of Montgomery County, president; Dr. Edward H. Schoenling, Cincinnati, health commissioner of Hamilton County, vice-president; and Dr. W. D. Bishop, Greenville, health commissioner of Darke County, secretary.

* * *

William H. Dittoe, former chief engineer of the State Department of Health and since 1927 chief engineer of the Mahoning Valley sanitary district, died at Youngstown, May 26.

* * *

Dr. John Edwin Brown, Sr., Columbus, was re-elected president of the Board of Trustees of Ohio Wesleyan University, Delaware.

* * *

Dr. Edward J. McCormick, Toledo, Grand Exalted Ruler of the B.P.O.E. was guest of honor at a special meeting of the Muskegon County Medical Society, Muskegon, Mich., Saturday, June 17.

* * *

The United States Food and Drug Administration has initiated action against Bromo-Seltzer, under the dangerous drug section of the new Federal Food, Drug and Cosmetic Act.

* * *

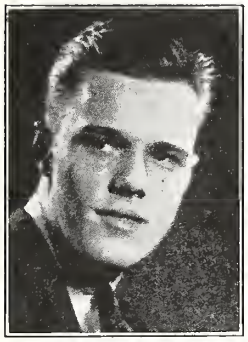
At the recent session of the House of Delegates of the California Medical Association, a resolution was adopted assessing each member of the Association $10 for the purpose of securing sufficient funds "to carry on a campaign of public information and education with respect to public health and welfare". This special assessment is in addition to the $10 annual dues of each member. Annual dues for 1940 will be $20.

New Bureau of Public Education Begins Operations

Activities to Acquaint Ohio Citizens With the Achievements and Views of the Medical Profession Launched as Part of the Services of the State Association

IN compliance with action of the House of Delegates at the 93rd Annual Meeting in Toledo, May 3 and 4, a Bureau of Public Education has been established at the State Headquarters Office, Columbus.

The new Bureau will be a permanent part of the central office of the State Association. It will be under the control of The Council and the Executive Secretary. Activities of the Bureau will be financed temporarily from the reserve funds of the Association and after January 1, 1940, from current operating funds which will be increased by the nominal raise in per capita annual dues from $5.00 to $7.00, authorized by unanimous vote of the House of Delegates.



MR. ASZLING

Director of the Bureau of Public Education is Richard A. Aszling, formerly of Dayton. The State Association is fortunate in having obtained Mr. Aszling for this important position. He is a graduate of Oberlin College, having majored in the political sciences, supplemented by postgraduate work abroad. For the past three years, Mr. Aszling has been a member of the news and editorial staff of the Dayton Daily News, engaging in routine news coverage, special assignments, feature writing and copy-desk work. He has written a number of excellent feature articles dealing with medical and public health subjects, including a series of full-page articles published in the Dayton Daily News pointing out the dangers and fallacies of government-controlled medicine and reviewing the accomplishments of modern medicine under the present system of individual, competitive practice. Mr. Aszling has a background and training which fit him exceptionally well for the important assignment which he will have with the State Association.

Although compelled to start almost at scratch, the new Bureau of Public Education will be prepared to swing into high gear by early Fall. During the next several months, the Bureau plans to carry out several definite projects which have been authorized by The Council and to formulate a comprehensive program of activities for the ensuing Fall and Winter. The job delegated to the Bureau is a big one, with unusual possibilities in the field of public relations.

Your President, members of The Council and the Committee on Public Relations and Economics, the Director of the Bureau, and the Executive Secretary will need the active cooperation of the entire membership in getting this new activity of the Ohio State Medical Association off to the right kind of a start.

A large part of the work of the Bureau of Public Education will be carried on in cooperation with and through the various component county medical societies. Therefore, it is apparent why we must have the undivided support of all county societies. Many splendid suggestions relative to activities which may be undertaken by the Bureau have been filed with the State Headquarters Office. However, we need additional suggestions and ideas.

Each and every member should feel that he has a part in this big undertaking and should write to the Executive Secretary, setting forth any ideas which he may have as to what can or should be done to acquaint the public with the work of the medical profession and the viewpoints of the State Association on medical and public health questions. We need advice and ideas. Members should consider the furnishing of these as their part in this new undertaking—at least while the Bureau is in its infancy.

Richard A. Smith

President

Legislative Activities of State Association Reviewed; Action on and Status of Medical-Health Proposals and Other Measures of Interest Summarized

By CHARLES S. NELSON, Executive Secretary

WHEN the Ninety-Third Ohio General Assembly ended its regular session on June 14 with sine die adjournment, it left a record which compares favorably with that of any previous General Assembly and one considerably better than the records of the last several Assemblies.

Composed of a majority of conservative, competent members, the Ninety-Third General Assembly worked harmoniously with Governor Bricker and the executive departments on major pieces of legislation although at no time did the administration attempt to use high-pressure tactics to win approval of administration-backed bills. On numerous occasions, the Assembly demonstrated that it was not a rubber-stamp body, slaughtering proposals which might have been helpful politically to members but which were deemed unsound economically or of doubtful public benefit.

LEADERSHIP PRAISED

Those in close touch with the activities of the Assembly since January 2 are practically unanimous in their praise of the leadership taken by veteran members of both the House and Senate. Special commendation is due William M. McCulloch, Piqua, speaker of the House; Harry McGregor, West Lafayette, speaker pro-tem (majority floor leader); Lieutenant Governor Paul Herbert, Columbus, president of the Senate, and Frank E. Whittemore, Akron, president pro-tem of the Senate (majority floor leader). Assisted by members of the powerful rules committees of both houses and many other conservative, seasoned legislators too numerous to mention here, the above leaders did a notable job of bill-sifting and in keeping the attention of the Assembly focused on important, necessary legislation. Out of approximately 1,000 bills introduced, 229 were passed by the Assembly during its five-month session.

Major accomplishments of the Legislature included adherence to the "no new taxes" slogan of the administration; enactment of a comprehensive poor relief program for 1939 and 1940; provision for financing the public schools on a "pay as you go" basis and to amortize the existing public school debt; abolishment of ear-marking of many tax revenues and revamping of the entire financial program of the state to enable it to live within its income; reorganization of a number of state departments, boards and commissions to increase their efficiency and the caliber of their personnel; and provision for the beginning of a state welfare institution building program.

MANY MEDICAL-HEALTH PROPOSALS

The usual number of bills affecting public health or having medical angles was introduced, some of them highly controversial or potentially detrimental to public health. Due to the good judgment of most of the members of the Assembly and to the excellent job done by most of the county society legislative committeemen, none of the objectional so-called health and medical proposals was passed but several constructive measures, actively sponsored by the Ohio State Medical Association or by the Association in cooperation with other groups, were enacted into law. In general, the legislative activities and the program sponsored by the State Association were successful. Health and medical bills which received the united, active support of the physicians of the state were passed. Those which were actively opposed by the profession in concerted fashion were defeated. Health and medical measures which failed to receive united support on the part of the medical profession because of apathy or a difference of opinion, were lost in the shuffle.

The above facts and results prove two things: (1) If united and active, the medical profession can wield considerable power on legislative matters. (2) If indifferent or divided on matters of policy, the profession cannot be successful in its legislative activities.

SEVERAL OBJECT LESSONS

Two additional observations are worthy of consideration: (1) The political complexion of the General Assembly is a negligible factor so far as public health and medical questions are concerned. In the final analysis, the character of the individual members of the Assembly and the efficiency of the work done by the legislative committeemen of the respective county medical societies are what count. (2) Most legislators, like most citizens, have the highest respect for the physician as an individual—especially the physician attending him and his family. On the other hand, some legislators, like some citizens, are inclined to view with suspicion the requests

and arguments made by the medical profession as a group. The insidious propaganda which has been in circulation during the past few years, questioning the motives of the medical profession and belittling its work and accomplishments, is responsible for this unfortunate situation. This condition must be corrected. Until the confidence of the public in the medical profession as a group is restored, the path of the profession legislatively speaking will be unpredictable. Obviously, the profession—primarily the individual physician—must assume this job and responsibility.

WORDS OF APPRECIATION

Before reviewing, briefly, some of the proposals before the Ninety-Third General Assembly which were of direct interest to the medical profession because of their bearing on public health and the practice of medicine, and which were followed closely through the entire session, the writer wishes to take this opportunity, on behalf of the Headquarters Office staff, to thank and compliment those who played a major part in the legislative activities of the Association during the past six months.

We cannot over-emphasize the importance of the fine work done in practically all counties by the local legislative committeemen and by many of the local presidents and secretaries. The efficiency of their activities in interviewing and contacting members of the General Assembly is shown in the final results. Members of the Committee on Public Relations and the Sub-Committee on Legislation deserve a vote of appreciation. The former committee was called upon frequently to meet in Columbus to decide policies on pieces of proposed legislation. Members of the latter committee did an exceptionally fine job in the field, organizing the work in the counties in their respective legislative districts.

Members of the Committee on Public Relations and Economics who are to be congratulated for their fine work were: Dr. D. B. Lowe, Akron, chairman; Dr. D. C. Houser, Urbana; Dr. C. W. Stone, Cleveland; Dr. E. O. Swartz, Cincinnati; Dr. H. M. Platter, Columbus; Dr. Parke G. Smith, Cincinnati; Dr. Barney J. Hein, Toledo, and Dr. John B. Alcorn, Columbus.

Members of the Sub-Committee on Legislation whose field work was so effective were: Dr. Houser, chairman; Dr. Emil R. Swepston, Cincinnati; Dr. R. M. Watkins, Cleveland; Dr. I. B. Harris, Columbus; Dr. J. R. Shoemaker, Cuyahoga Falls; Dr. H. V. Dutrow, Dayton; Dr. D. J. Slosser, Defiance; Dr. J. W. Schoolnic, East Liverpool; Dr. J. C. Larkin, Hillsboro; Dr. Wm. F. Marting, Ironton; Dr. A. Howard Smith, Marietta; Dr. Carl Sawyer, Marion; Dr. Geo. F. Linn, Norwalk; Dr. O. J. Walker, Youngstown, and Dr. Jay W. Calhoon, Uhrichsville.

Because the State Legislature meets in Columbus, special responsibilities fall on the shoulders of selected members of the medical profession of that city every two years, involving attendance at hearings and speaking for or against bills pending before legislative committees. We feel that the membership should be deeply appreciative of the sacrifices made during the recent legislative session by Dr. J. H. J. Upham, Dr. Platter, Dr. C. C. Sherburne, Dr. Russel Means, and Dr. Jonathan Forman who were called upon frequently, occasionally at a moment's notice, to speak before some committee of the General Assembly on some important proposal, and who always responded willingly and effectively.

Members of the State Association would be ungrateful indeed if they did not appreciate the splendid support and cooperation given by Dr. H. T. Phillips, Athens, a member of the Senate, and Dr. E. LeFever, Glouster, a member of the House. The former was chairman of the Senate Health Committee and the latter chairman of the House Health Committee. Their advice and help were indispensable at all times. Both deserve much credit for their part in making the legislative program of the Association the success it was.

ASSOCIATION'S RECORD SATISFACTORY

Although the State Association was not successful in having all of the bills which it sponsored or supported enacted, in general the record of the Association may be termed as quite satisfactory, and as comparing favorably with that of any other group or organization. Those who follow the activities of the General Assembly over a period of years know that the progress of most proposals from the period of introduction to that of enactment usually is one of uncertainty, accompanied by all manner of complications, log-rolling, trading, etc. Also, they know that usually it is more difficult to obtain the enactment of bills than to have them defeated. This being the case, it is not surprising that the Association failed to win final approval of all proposals it believed worthy of enactment. Of the 75 to 100 bills followed by representatives of the State Association, five were considered of special importance and were actively supported by the Association. Three of the five were enacted into law. With respect to one of the two which failed, the opinion of the membership was divided. These five proposals were the following:

CHANGES IN MEDICAL PRACTICE ACT

Senate Bill 97, introduced by Dr. H. T. Phillips, Athens, signed by Governor Bricker on April 24 and effective July 25, 1939. This measure amends the Medical Practice Act to require all applicants for medical and surgical or osteopathic and surgical licenses in Ohio through examination to have two years of collegiate work in an approved school of arts and sciences in addition

to a degree from an approved medical or osteopathic school; to require applicants for an Ohio license through reciprocity to meet the same requirements as applicants for a license by examination; and to divide the fines collected through prosecutions between the state and the county or city in which the offense was committed. An applicant holding a license in a foreign country or degree from a foreign medical school will be required to meet the two-year pre-medical provision and in addition to comply with a regulation of the State Medical Board requiring him to have made an application for first citizenship papers. Also, the Board under general powers granted by the Medical Practice Act will have the right to determine whether an applicant from a foreign country has had sufficient pre-medical training and whether the foreign school in which he took such work can be recognized by the Board as an "approved school". Members of the State Medical Board are of the opinion that Senate Bill 97 is the most important proposal amending the Medical Practice Act enacted since the passage of the act in 1896. According to the Board it will clarify important provisions of the Medical Practice Act, enhance administration of the act, and greatly assist the Board in weeding out those with inferior training and education from the list of applicants for an Ohio license.

The practical effect of one section of Senate Bill 97 is to tighten up provisions of the Medical Practice Act relating to reciprocity with other states. Under the amended section, physicians holding a license in another state cannot get a license in Ohio, either through examination or waiver of examination, unless they hold a diploma from an approved medical school and have had at least two years of collegiate work (in addition to medical school graduation) in an accrediated school of arts and sciences. Credentials will be the deciding factors and not the holding of a license in another state as in the past. So-called "blanket" reciprocity between Ohio and other states is eliminated by this act.

Of equal importance is the provision which will require physicians licensed in foreign countries or who hold a diploma from a foreign medical school, to produce credentials showing they have had two years of pre-medical education in a school of arts and sciences on a parity with an accredited school of arts and sciences in this country and showing that they have graduated from a foreign medical school on a parity with approved medical schools in the United States. Unless the applicant can satisfy the Board that he has had such training, he cannot enter the examinations for an Ohio license. For the same reason he cannot enter Ohio through reciprocity although he may hold a license in another state.

As originally drafted, the bill would have barred from Ohio applicants holding a degree or license from most of the foreign countries. Groups interested in assisting refugee physicians, aided by powerful political figures in both parties, protested this provision of the proposal and were successful in having the bill modified. At one time the opposition was so strong that enactment of the bill was endangered. This situation was reported by the Executive Secretary to The Council which, based on his report and recommendation, voted **not** to oppose an amendment to the bill eliminating what was termed a "too drastic" provision of the bill. The final result was enactment of the bill in the form summarized in the foregoing paragraphs. The opinion of the writer is that the bill **would not have been enacted** in its original form, that The Council acted wisely and that in deciding not to oppose the amendment referred to, saved the bill which as enacted gives the State Medical Board sufficient power to satisfactorily meet most of the new problems of licensure arising from the chaotic state of international affairs.

NEW PUBLIC HEALTH SET-UP

House Bill 301, introduced by Dr. E. LeFever, Athens, was approved by the Governor on May 17 and will become a law on August 17. This law will increase the size of the Ohio Public Health Council from four to six members, three of whom shall be doctors of medicine; give the council more power and authority over the activities of the State Department of Health; provide a five-year term for the State Director of Health who will be appointed by the Governor from a list of six qualified persons submitted by the council; and make necessary corrective and clarifying changes in the present health laws of Ohio. The effect of the proposal will be to increase the efficiency of the State Department of Health and provide a continuity of personnel and policy within the department so that a better public health program for the state can be formulated and carried out. The proposal was sponsored and actively supported by the Ohio State Medical Association and the Ohio Public Health Association, assisted by local health officials, nurses' organizations, and other groups interested in public health work.

POOR RELIEF LEGISLATION

One of the most important as well as most controversial questions considered by the Ninety-Third General Assembly was that of poor relief. Space will not permit a complete review of the deliberations of the Assembly on this matter. The following are merely the high lights of this part of the Legislature's work.

The poor relief question must be divided into two parts, namely, financing and administration. After considerable dickering and compromising

on the part of representatives of both rural and urban blocs, the following bills dealing with the matter of financing of poor relief were enacted. The financial program is a serious attempt to do away with so-called "stop gap" relief financing and place it on a two-year permanent basis.

Senate Bill 4—This act authorizes cities to raise funds for poor relief activities and money for the matching of state grants-in-aid through special tax levies, providing such special levies receive a 50 per cent affirmative vote of the voters of a city in 1939 and a 55 per cent affirmative vote in 1940. Such levies will be operative for only two years. Outside of cities special levies must receive an affirmative vote of 65 per cent.

Sub. Senate Bill 40—Under this act, counties are authorized to use motor vehicle license tag revenues up to 25 per cent of the total for poor relief and for matching state relief funds. Cities during 1939 and 1940 are permitted to use 10 per cent of such funds to pay salaries of traffic officers, thereby releasing general funds for relief purposes. Funds used by a county from the motor vehicle license fund must be paid back out of the general funds of the county by May 31, 1941.

Senate Bill 320—This act provides that two-thirds of the cost of the county engineer's office shall be paid from the gasoline and license tag revenues of the county, freeing an equal amount of general funds for poor relief financing.

House Bill 674—A provision for the appropriation of $10,000,000 in 1939 and a like amount in 1940 from state funds to be distributed to the local political subdivisions for poor relief activities is contained in this act, the General Appropriations Act.

NEW ADMINISTRATIVE SET-UP

Setting up of administrative machinery, designed to bring about greater efficiency in the handling of poor relief, proved to be one of the toughest nuts for the Legislature to crack. After months of deliberation and bill-drafting, the General Assembly finally enacted the following bill which is considered by many as a distinct improvement over previous administrative measures.

Am. Sub. House Bill 675 — The act creates county relief areas and city relief areas. All of a county outside of cities constitutes a county relief administrative area. County commissioners are designated the administrative agency for county areas and the proper city official as the city relief administrator.

Township trustees may be designated by the county commissioners as their relief agents if a request for such authority is made by the township trustees. However, the county commissioners are in the final analysis the responsible county relief authority. The township trustees may carry on only such activities as are delegated to them by the county commissioners. Cities may combine their relief administration or may transfer their responsibility to the county. Here is the first definite move on the part of the Legislature to bring about some degree of centralization of relief administration on a county-wide basis—a move which those who favor more efficiency in relief administration have been advocating.

SOME POINTS NOT CLEAR

State administration is vested in the State Director of Public Welfare with power to make and enforce rules and regulations. The old poor relief sections of the General Code are retained in force "except as modified". Just what these words "except as modified" mean and what modifications actually are made are not quite clear at this time. The wording of the new act has the advisers of the State Director of Public Welfare scratching their heads. Interpretations and rulings based on such interpretations are being prepared but undoubtedly will not be promulgated officially until a number of points have been passed upon by the Attorney General.

Under the act, state funds will be distributed to the counties on the basis of a monthly reimbursement of half of the local obligations incurred for relief for the preceding month or whatever lesser proportion is covered by the available state money. This places distribution on the basis of need. At the same time, it requires counties and cities to use local funds for at least half of their relief expenses.

MEDICAL CARE GIVEN DEFINITE STATUS

A new policy regarding medical care for indigents is established in the act. "Poor relief" is defined in the act and the act specifically states that "poor relief" may take the form of "work relief," "direct relief" or "medical care". The term "medical care" is defined as "medicines and the services, wherever rendered, of a physician or surgeon or the emergency services of a dentist, furnished at public expense".

For the first time, "medical care" is placed on an equal footing with other forms of poor relief. Definite provision is made for the use of poor relief funds for compensating physicians for services rendered the poor in the home of the recipient, in the physician's office, or in the hospital. This is sound administrative policy. Of course, there still will be the problem of financing but the new act leaves no doubt as to authority to pay physicians for services "wherever rendered" providing funds are available.

WHAT OF THE TOWNSHIP TRUSTEES?

Careful analysis of the act indicates that its provisions supersede the old poor relief statutes dealing with medical care and that, in the future, administration of medical care for the indigent rests with the county commissioners or

city authorities or a combined county-city relief authority, eliminating entirely the township trustees. Also, some have interpreted the act as giving the county or city the authority to provide medical services at public expense for the so-called "medically indigents"—those who can provide some necessities for themselves, but are unable to pay for emergency medical attention. As yet, the State Director of Public Welfare has not handed down a ruling on these points. It is likely that these will be among the questions which will be submitted to the Attorney General for an opinion. As soon as official interpretations and rulings have been prepared, a bulletin explaining them will be sent from the Headquarters Office to all county medical society presidents and secretaries to guide them and their poor relief committees in carrying on negotiations with county and city relief authorities.

TWO BILLS WHICH FAILED

Senate Bill 104, introduced by Senator Lawrence Kane, Cincinnati, at the request of the Ohio State Medical Association. The purpose of this proposed enabling act was to permit the organization of non-profit corporations by the medical profession to operate group medical service plans for low-wage earners on a prepayment basis. Supervision would have been placed in the hands of the Superintendent of Insurance. This bill was part of the constructive program established by the Ohio State Medical Association to bring about a greater distribution of adequate medical care and to provide a legal vehicle for the operation of local group medical service plans by county medical societies or academies of medicine.

The fact that Senate Bill 104 **failed to be enacted** disappointed physicians in a number of urban centers where group medical service plans had been—still are—under consideration. There are many reasons why this bill failed, among them the following: (1) Difference of opinion within the medical profession regarding the merits and demerits of group medical service programs and the necessity for such legislation. Many physicians were apathetic toward the bill. Some actively opposed it. At least half of the county medical societies registered indifference or questioned the purpose of the bill. Little activity in promoting the proposal among legislators was taken except in a few industrial centers. This attitude was confusing to members of the General Assembly, to say the least. (2) Many conservative members of the General Assembly regarded the proposal as socialistic in character and thought it conflicted with the policy of the State Association. These misunderstandings and erroneous impressions could not be overcome due to the lack of concerted action by the physicians of the state generally. (3) Bitter opposition was voiced by osteopaths and limited practitioners who would not have been included in medical service plans which could have been established under the terms of the bill. (4) Some farm and labor groups opposed the bill on the grounds that it would interfere with medical service plans they have under consideration or compete with certain benefit programs operated by labor and fraternal groups. (5) Although the bill had the approval of the insurance department and representatives of some of the insurance companies, it was opposed quietly by some insurance interests. (6) Some members of the Legislature who were inherently anti-medical carried on a sniping campaign against the proposal.

Despite the temporary set-back resulting from the failure of Senate Bill 104, the constructive program of the State Association will be continued in a vigorous manner. Several of the larger academies are proceeding with their medical service plans. Other methods of meeting the problem of wider distribution of medical services, especially to the low-income groups, will be established. One big lesson was learned, namely: There is a real need for an educational campaign among members of the profession to show the necessity for making medical services available on a voluntary insurance basis under the direct control and supervision of the medical profession, and that enabling legislation cannot be enacted until the profession unites on ways and means of providing such services and on the terms of any proposal.

House Bill 273, introduced by Representatives Betts, Findlay, and Radcliff, Circleville, at the request of the State Medical Association. This bill **did not make the grade** although it was a constructive proposal. Briefly, it proposed to amend Section 3480 of the General Code by striking out the words which permit township trustees and city officials to pay a physician what they "deem just and reasonable" for services rendered an indigent. As amended, the section would have given the physician the right to sue to collect any part of his fee which the township trustees or city officials refused to pay. The bill was fought by the township trustees. Late in the session a compromise was reached with the trustees and the bill was re-worded. However, the substitute proposal was caught in the jam during the final days of the session and was not put to a vote in the House, although it had the approval and recommendation of the House Judiciary Committee.

CULT PROPOSALS KILLED

The following six bills caused considerable trouble for the legislative representatives of the Association and were defeated only after exceptionally good work "back home" by the legislative committeemen.

House Bill 72, introduced by Representative Cory, Fostoria, and actively supported by the Ohio State Osteopathic Society, was **indefinitely postponed** early in the session by the House Health Committee. This bill, if enacted, would have placed two osteopaths on the State Medical Board and given osteopaths unrestricted rights, despite their inferior education, training and experience.

House Bill 512, also introduced by Representative Cory, and sponsored by the osteopaths, provided for osteopathic representation on the State Medical Board. The House Health Committee used good judgment by killing the proposal.

House Bill 392, introduced by Representative Stokes, Lancaster, was the perennial Christian Science Bill, although the bill did not mention Christian Science but healing by prayer in a general way. It would have exempted prayer-healers from the provisions of the Medical Practice Act—from all legal restrictions, in fact. This proposal was dynamite during the entire session —that is until May 23 when it was **tabled by the House by a close vote.** The political pressure behind this bill was terrific. In view of that fact, the defeat of House Bill 392 is a real compliment to the local legislative committeemen, especially those from rural counties whose representatives for the most part used sound judgment in voting to table it.

ADDITIONAL IMPORTANT MEASURES

House Bill 188, introduced by Representative Deddens, Cincinnati, proposed to establish a separate board to examine and license nurses, functions now carried on under the State Medical Board in an efficient manner. It was sponsored by the Ohio State Nurses' Association. The State Medical Association opposed it for several reasons, namely: (1) It would have created a new state board. (2) New boards cost the state more money. (3) The present setup has been operating efficiently and satisfactorily. (4) Because of the close relationship between medical education and nurse education and between physicians and nurses in active practice, medical authorities should have supervision over the examining and licensing of nurses. (5) The principle of having one responsible board to examine and license all who deal with the sick should be preserved. (6) The proposed new law might seriously interfere with the operation of nurses' training schools in many small hospitals throughout the state. House Bill 188 was recommended for passage by the House Committee on Education but did not get on the calendar for action by the House before final adjournment.

Senate Bill 181, introduced by Senator Pollock, Canton, and sponsored by the Ohio Hospital Association, was enacted on April 6, signed by the Governor on April 12, and will become effective July 12. It is an enabling act authorizing the establishing of non-profit corporations to operate group hospital service plans under the supervision of the Superintendent of Insurance. Such plans have been in operation in Ohio for the past seven or eight years but without any supervision by any state agency. As amended on the floor of the House, the holder of a group hospital service contract may enter any non-profit hospital for hospitalization and the corporation issuing the contract must reimburse such hospital for services rendered within the terms and limitations of the contract, even though the hospital may not be a member of the service corporation. The amendment was inserted by rural members of the Assembly for the purpose, they stated, of protecting small hospitals throughout the state. This was a constructive bill and supported by the State Medical Association.

WORKMEN'S COMPENSATION BILL

Senate Bill 297, introduced by Senator Kiefer, Springfield, jointly sponsored by labor and industry, to meet the situation created by a recent Ohio Supreme Court decision re-establishing open liability for damages against employers for occupational diseases not specifically defined and covered under the Workmen's Compensation Act. This bill was passed as an emergency act; signed by the Governor on May 26 and effective immediately.

The act amends Sections 1465-68a and 1465-70 of the Workmen's Compensation Act and establishes a new section—1465-68d. It grants immunity from suits for any case involving a disease, occupational injury or death of an employe; provides a six months' statute of limitations within which any action must be brought for occupational disease or death not heretofore compensated from the state insurance fund; adds to the present list of compensable occupational diseases, Item 23 reading as follows, "all other occupational diseases," such other occupational diseases being defined as "a disease peculiar to a particular industrial process, trade or occupation and to which an employe is not ordinarily subjected or exposed outside of or away from his employment"; adds the following limitation and qualification to the definition, "all conditions, restrictions, limitations and other provisions of this section, with reference to the payment of compensation or benefits on account of silicosis, shall be applicable to the payment of compensation or benefits on account of any other occupational disease of the respiratory tract resulting from injurious exposure to dusts"; provides for a Board of Review of three doctors of medicine to hear appeals of occupational disease claims which have been denied by the State Industrial Commission, such doctors to "have expert knowledge of occupational diseases by training and

experience" and to be appointed by the Commission from lists of names selected jointly by the dean of the College of Medicine, Ohio State University, the State Director of Health, and the State Industrial Commission.

Also, this act precludes appeals to the courts of occupational disease cases; limits new occupational diseases of the respiratory tract caused by dust within the limitation prescribed for silicosis; removes the difference now existing between compensation for silicosis contracted before and after the effective date of the act; provides for compensating silicosis after three years, instead of five years' injurious exposure; and eliminates payment of compensation of partial disability or wage impairment for silicosis and other respiratory diseases caused by dust.

In addition to the foregoing proposals, there were many other bills introduced and acted upon which were of direct interest to the medical profession or had a bearing on public health or the practice of medicine. Some of the more important and interesting proposals, with designation concerning their status at the end of the session, are listed below:

MEDICAL AND PUBLIC HEALTH

Senate Bill 67—To provide a means to control and eradicate Bang s disease of cattle and to protect public health from this d sease. **Enacted. Effective April 28.**

Senate Bill 293—Relative to the power of the state department of health in exercising general supervision over disposal of sewage and industrial wastes. **Enacted. Effective September 1.**

Senate Bill 298—To restrict the sale of paregoric to pharmacists. **Enacted. Effective September 7.**

House Bill 290—To provide for the payment by township trustees of the cost of indigent cases in county hospitals. **Enacted. Effective August 30.**

House Bill 291—To exempt bequests to public hospitals from the state inheritance tax. **Enacted. Effective Aug. 16.**

Senate Bill 28—To provide that applicants for a marriage license must submit to a medical examination and possess a certificate of freedom from venereal disease to obtain a license. **Recommended for passage by Senate Committee on Public Health. Senate Calendar.**

House Bill 379—Similar to Senate Bill 28. **Recommended for passage by House Health Committee. House Calendar.**

House Bill 246—Similar to Senate Bill 28 and House Bill 379. **House Judiciary Committee.**

House Bill 268—To revise, recodify and consolidate the laws of Ohio relating to marriage, including a requirement for pre-martial physical examination. **House Judiciary.**

House Bill 171—To provide for the appointment of a commission to investigate the question of providing for and financing the administration of medical services and to report with recommendations for proper and effective legislation therefor. **Indefinitely postponed by the House Finance Committee.**

House Bill 204—To give surviving spouse, personal representative and heir of client or patient the right to waive the privileges as to testimony of attorney or doctor. **House Codes Committee.**

House Bill 401—To amend laws pertaining to privileged communications, making exceptions in cases involving the testimony of physicians in damage suits. **Indefinitely postponed by House Judiciary Committee.**

House Bill 52—To provide for the appointment of a commission to continue the study, investigation and survey of possibilites for the rehabilitation of the physically handicapped; to study and investigate the possibilities of providing medical and surgical aid and care to the aged and physically handicapped. **Recommended for passage by House Committee on Public Welfare and House Committee on Finance. House Calendar.**

Senate Bill 22—Identical with House Bill 52. **Senate Committee on Finance.**

Senate Bill 114—To permit the practice of optometry by corporations. **Senate Committee on Public Health.**

Senate Bill 126—To prohibit and prevent the sale and use of fireworks except for public display by certain organizations and associations. **Indefinitely postponed by Senate Committee on Commerce and Labor.**

Senate Bill 134—To amend the General Code relative to the examination, regulation, licensure and registration of optometrists. **Recommended for passage by Senate Committee on Public Health. Senate Calendar.**

Senate Bill 229—To provide for the compensation of members of the board of health in each general health district. **Senate Committee on Public Health.**

Senate Bill 253—To provide that the manufacture of frozen desserts be placed under the control of the director of health (instead of the director of agriculture) and to provide regulations for the manufacture of such products. **Senate Committee on Public Health.**

House Bill 37—To provide, in addition to funeral expenses, necessary hospitalization of recipients of aid for the aged. **House Public Welfare Committee.**

House Bill 283—To increase the motor vehicle license tax to provide funds for the compensation of indigent persons injured in motor vehicle accidents. **Indefinitely postponed by House Motor Vehicles Committee.**

House Bill 356—To provide for the submission of an estimate of contemplated revenue and expenditur s for the ensuing fiscal year by the boards of health of municipal corporations having a population of 50,000 or less, directly to the county budget commission. **House Health Committee.**

House Bill 103—Relative to the creation of joint township hospital districts and to provide for the erection and maintenance of general township hospitals therein. **Passed by House. Recommended for passage by the Senate Committee on Political Subdivisions. Senate Calendar.**

House Bill 373—To include all forms of cannabis in the definition of drugs under the State Narcotic Act. **Recommended for passage by the House Health Committee. House Calendar.**

House Bill 659—To revise and recodify the laws relating to county and district tuberculosis hospitals and dispensaries. **Recommended for passage by House Health Committee. House Calendar.**

WORKMEN'S COMPENSATION

Senate Bill 118—Permits the State Industrial Commission to review decisions and findings of district boards of claims upon application of either the claimant or the employer. **Enacted. Effective August 28.**

Senate Bill 400—Limits accrued compensation to the two years immediately preceding the filing of an application for modification of award instead of ten years' accrual as heretofore. **Enacted. Effective August 28.**

Senate Bill 14—To provide for the payment of compensation for industrial accidents for the first week after the injury. **Senate Committee on Commerce and Labor.**

House Bill 607—To provide for right of appeal in Workmen's Compensation cases involving occupational diseases. **House Reference Committee.**

House Bill 608—To provide a rule fixing compensation for loss of hearing. **House Labor Committee.**

House Bill 609—To abolish the right of self-insuring. **House Reference Committee.**

House Bill 614—To provide for audit and examination by the auditor of state of the state insurance fund, and the fund for the investigation and prevention of industrial accidents and diseases. **Substitute bill recommended for passage by House Finance Committee. Considered by the House and recommitted to the House Finance Committee.**

PUBLIC WELFARE AND RELIEF

Senate Bill 9—To enable local political subdivisions to establish institutions for the housing and care of mentally defective prisoners. **Enacted. Effective September 8.**

Senate Bill 313—To authorize the Institutional Building Authority to issue bonds, not exceeding $10,000,000, for the purpose of building additional state hospitals and institutions. **Enacted. Effective May 29.**

House Bill 5—To liberalize the Old Age Pension Law by re-deeding to pensioners property previously conveyed by them to the State and to minimize the lien against property upon the death of the pensioner. **Enacted. Effective September 6.**

House Bill 504—To provide for a supervisor of education of handicapped children, in the Department of Education. **Enacted. Effective July 29.**

House Bill 596—To revise the laws pertaining to the adoption of children. **Enacted. Effective September 6.**

House Bill 628—To improve working conditions of em-

ployees in institutions under control of the State Department of Public Welfare. **Enacted. Vetoed by the Governor.**

Senate Bill 1—To create "The Ohio Aid for the Aged Council." **Senate Committee on Commerce and Labor.**

Senate Bill 2—To provide alternative forms of county government for adoption by the electors of any county. **Senate Committee on Political Subdivisions.**

Senate Bill 7—To provide for the licensing of institutions and boarding homes for aged persons; to authorize the Department of Public Welfare to make rules and regulations and to administer the provisions of the act. **Recommended for passage by the Senate Committee on Economy in State Government. Considered by the Senate and recommitted to the Senate Committee on Economy in State Government.**

Senate Bill 139—To provide for the reorganization of the State Department of Public Welfare into four divisions, including a Division of Social Administration. **Passed by the Senate. Defeated by the House.**

Senate Bill 140—To revise the regulations of the Department of Public Welfare concerning the mentally diseased. **Passed by the Senate. House Committee on Public Welfare.**

House Bill 78—To establish a bureau for the aid of the physically handicapped in the Department of Public Welfare. **House Committee on Organization of State Government.**

House Bill 120—To relieve counties of paying a part of the cost of providing aid to dependent children. **House Committee on Public Welfare.**

House Bill 230—To provide for a bureau of criminal investigation within the Department of Public Welfare. **House Committee on Codes.**

House Bill 377—To provide for a commission to examine, report upon and recommend measures to improve the economic, cultural, health and living conditions of the urban colored population of the state. **Recommended for passage by the House Committee on Public Welfare. House Calendar.**

House Bill 521—To consolidate welfare activities in each county under a welfare board. **House Committee on Public Welfare.**

House Bill 563—To provide for the appointment of a special committee to make a study of the problem of mental deficiency in children. **House Committee on Public Welfare.**

House Bill 565—To prevent the procreation of criminal, insane, feeble-minded and epileptic persons when the same will prove beneficial to the physical, mental or moral condition of such person. **House Committee on Health.**

House Bill 627—To provide for the sterilization of certain classes of feeble-minded, epileptic, insane and defective delinquent persons before their release from state or county institutions. **Passed by the House. Senate Committee on Public Health.**

House Bill 655—To transfer administration of aid to dependent children from juvenile court to proposed county welfare department. **Recommended for passage by House Public Welfare Committee. House Calendar.**

House Bill 568—To provide for changes in the administration of aid to the blind. **House Committee on Public Welfare.**

Lederle Exhibits at N. Y. Fair

In the Medicine and Public Health Building, New York World's Fair, Lederle Laboratories are sponsoring scientific exhibits on Allergy and on Pneumonia. The Pneumonia exhibit presents, pictorially, the best composite opinion of the medical profession on how a pneumonia case should be treated. The exhibit on Allergy, tells, in changing dramatic sequences, three two-minute dramas of Allergy. Both exhibits are addressed to intelligent laity and are attracting close attention. Physicians visiting the New York World's Fair are entitled to exclusive privileges in the Professional Club in the same building. Admission is obtained by simple identification as a doctor, without charge, and is only available to physicians and their guests. Provision is made here for consultation with exhibit sponsors on technical questions.

Petitions Asking Referendum On Group Hospitalization Act Circulated

Petitions are being circulated in Ohio proposing a referendum on Amended Senate Bill 181, enacted by the Ninety-Third General Assembly, authorizing the organization of non-profit corporations to provide group hospital service on a pre-payment basis under the supervision of the State Superintendent of Insurance. The proposal was sponsored and actively supported by the Ohio Hospital Association.

The bill was signed by the Governor on April 12 and will become effective July 12 unless a sufficient number of signatures to the petitions is secured before that date. If a sufficient number of signatures is obtained, the effective date of the act will be postponed in order to give the voters of the state an opportunity to approve or reject the proposal at the General Election in November. Approximately 150,000 signatures of qualified voters including the signatures of at least three per cent of the number voting for governor at the last election in each of 44 counties will be required to place the question on the ballot in November.

According to newspaper articles relative to the proposed referendum, the Ohio Farm Bureau Federation and the Congress for Industrial Organizations are among organizations sponsoring the circulation of the petitions. One article quoted Ted F. Silvey, secretary-treasurer of the Ohio C.I.O. Council, as charging that "medical doctors and those associated with them have not hesitated to propose counterfeit group health plans now that the public demand for real health insurance is so great" and that "participants in the plan have no control over the operation of the system".

The committee officially registered with the Secretary of State as representing the petitioners consists of William C. Dixon, Cleveland, former member of the State Supreme Court and former state relief administrator; Clarence Keegan, Cleveland; Paul H. Bolton, Youngstown; John P. Gillespie, Youngstown; and Earl H. Hudson, Youngstown, with headquarters at 1163 Union Commerce Building, Cleveland.

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. Kenneth Bennett, Strasburg; Dr. Robert Fox, Green Springs; Dr. Albert Johnson, Marysville; Dr. Fred S. Skeen, Amelia; Dr. F. V. Gammage, Washington C. H.; Dr. W. H. Mannhardt, Bowling Green; Dr. W. W. Dixon, Delta; Dr. Charles S. Bishop, Newark; Dr. R. L. Weissinger, Sidney; Dr. A. Vinson, Utica, and Dr. Deane Northrup, Marietta.

Some Timely Warnings Regarding Collection Agencies; Read All Contracts, Investigate; Some Typical Cases

DESPITE the admonition repeated time and time again in *The Journal* that physicians must be extremely wary of high-powered collection schemes, a number of Ohio physicians continue to be victimized by certain agencies advertising themselves as specializing in financial adjustments and the collection of delinquent accounts for physicians and other professional men.

Ordinarily a physician can best collect his own delinquent accounts. If his efforts do not produce results, his next best bet is a local attorney or a local collection agency. Physicians in most of the large cities are fortunate in having available the services of a collection bureau operated by the local academy of medicine. The desirability of dealing with such an organization is obvious. Since the medical profession controls the bureau, the fees are reasonable and the methods of collection are ethical.

SOME GOOD; MANY BAD

When such services are not available, a number of physicians have tried to realize something on "bad" accounts by turning them over to collection agencies with high-sounding titles operating on a nation-wide basis. The results are usually unsatisfactory. Of course there are a few exceptions. Because of the difficulty of getting an accurate line on collection agencies and credit bureaus, *The Journal* has maintained a policy of refusing to accept their advertisements. A number of other state medical journals have also adopted this policy.

If a physician feels that the only method by which he can collect his delinquent accounts is through a commercial collection agency, before entering into any sort of an agreement, he should address an inquiry concerning the company which he is considering to the State Headquarters Office or to the American Medical Association where confidential material on many agencies is on file and which has saved a number of members from being filched by unscrupulous companies.

JOKERS IN CONTRACTS

Based on information obtained from physicians who have "locked the barn door after the horse was stolen", the following bad features may be noted in some collection agency contracts:

1. Granting full authority to the company to settle, collect, adjust and act as attorney-in-fact for the physician in handling accounts, thus giving the company power to take court action and perform special services, at extra cost to the physician.

2. Charging a larger fee for accounts collected in installments than for those collected in full, thus encouraging installment collections.

3. A docket fee on each account, regardless of whether any collections are made.

4. Assignment of authority to the company to endorse for deposit and collection, commercial paper received from all debtors.

5. Provision that payments made direct to the physician shall be remitted by him to the company, and commissions charged thereon.

6. Percentages allowed for collections are based on the amounts of the accounts assigned, and not on the amount which the company is able to collect. **Beware of the word "aggregate".** One contract which has been quite widely offered to physicians throughout Ohio contains the following stipulations concerning the computation of charges by the company:

"Twenty-five (25) per cent of the aggregate amount listed provided the total amounts to more than one thousand dollars. Thirty (30) per cent of the aggregate amount listed provided the total amounts to less than one thousand dollars ($1,000)."

A TYPICAL CASE

One Ohio physician turned over 20 accounts totalling $360.50 for collection on the above basis. After considerable time the company collected $63.00 from four of the accounts. When the physician requested 70 per cent of this amount, it was pointed out that the company's charge was 30 per cent of the "aggregate" amount of accounts listed (not the amount collected) and that the balance due the company was $45.15—$108.15 less $63.00.

Promises made by glib salesmen mean nothing. In the case cited above, the physician understood from his conversation with the salesmen that he was to receive 70 per cent of all money collected under the agreement. However, the contract which the physician signed contained this statement: "It is further understood and agreed that no oral representations made by your agents shall be binding upon you".

The dangers of dealing with unreliable collection agencies were pointed out in the following articles in previous issues of *The Journal:* March, 1938; January, 1938; March, 1936; December, 1936; December, 1935; August, 1934; April, 1934; December, 1932; July, 1932; November, 1931; September, 1931; November, 1930; October, 1930; July, 1930; March, 1930, and October, 1929.

Remember this: Before signing a collection agency contract, read the contract carefully, have a competent attorney do so, and investigate the status of the agency.

Review of the Toledo Academy's Group Medical Service Plan; Its Coverage and How Program Will Operate

FRED M. DOUGLASS, M.D., Toledo, Ohio
President, Toledo Medical Service, Inc.

SOON after these words appear in a dress of printer's ink, Toledo Medical Service, Inc., will be functioning in the City of Toledo and the County of Lucas.

In other words, complete-coverage voluntary health insurance—controlled in every respect by the medical profession itself—will become available to any person in the low-income group who can meet the liberal qualifications.

The membership of the Academy of Medicine of Toledo and Lucas County likes to think that in the work of evolving the plan for Toledo Medical Service, Inc., we had the honor and privilege of serving as a workshop for American Medicine. If we look with pride upon our creation, it is because we believe it to be a convincing demonstration by a typical association of American medical men that American Medicine does not blink at the sociological and economic problems before it but can and does cope with them on a realistic basis.

We do not pretend that our plan is perfect. Nobody believes that it will solve every medical problem of the low-income group over night. We expect, indeed, to discover that a good many provisions which seemed so feasible in theory will display flaws when viewed in the cold objective light of practice. For them we have provided the machinery for quick and easy change—and back of the machinery there is the unmistakable mood to use it.

Yet, all in all, we of the Toledo Academy believe that Medical Service, Inc., is a long step in the right direction. We honestly believe that it will serve its four stated objectives:

1. To bring good and continued medical care within the reach of every citizen of the low-income group.

2. Through the use of insurance principles to spread the present uneven and frequently burdensome load of the cost of medical care.

3. To help prevent illness by the exercise of preventive measures, anticipatory diagnosis, health education, constructive convalescent supervision, and cooperation with recognized health authorities.

4. To promote an environment through which the medical profession as a whole may provide medical care to persons in the low-income group without overburdening individual physicians—an environment which will favor the maintenance of high ethical standards, professional growth, and the continued promotion of scientific research.

In serving these objectives, this writer believes, Medical Service, Inc., also serves another objective most vital to the interests of organized medicine in a period of economic confusion and changing social order.

By preserving the best traditions of private practice and distributing a better quality and quantity of service than any other agency could offer, it increases public regard for the profession and endows it with new strength to resist political encroachment.

Before launching into a review of the plan behind Medical Service, Inc., it is essential that the reader have a clear understanding of its major points.

It is a program for complete medical service

DR. FRED M. DOUGLASS, Toledo, prepared the accompanying article at the request of *The Journal* in order to acquaint the membership of the State Association with the mechanics and scope of the group medical service plan being sponsored by the Toledo Academy of Medicine.

Dr. Douglass was chairman of the committee which spent many months formulating the Toledo plan and is president and a director of the corporation which has been organized to operate the medical service program. Also, Dr. Douglass served as a member of the Coordinating Committee of the State Association which, during the last Fall and Winter, investigated and studied the question of group medical service and allied questions.

The Toledo Academy of Medicine, through the committee headed by Dr. Douglass, pioneered in Ohio in so far as group medical service is concerned and by a large majority vote approved the plan recommended by his committee and which is about to be placed into operation.

and not catastrophic illness alone.

All licensed and reputable physicians of the community are entitled to practice under it, provided only that they agree in advance to the regulations and observe them in the actual discharge of their work.

Home and office services are given on a normal basis as well as medical care during hospitalization.

The subscriber not only is entitled to make his own choice of personal physician, surgeon, and consultant, but must make this choice.

The practitioner retains the right to decline nomination by a contract holder unsatisfactory to himself for personal or professional reasons.

Participating practitioners are encouraged to remain within the fields for which they are fitted by training and experience.

Safeguards are taken to protect the practitioner against frivolous claims upon his time and energy, but when a real need arises, the limitations to all practical purposes are suspended.

Medical members will receive remuneration only for actual services performed in a given period and each will be required to practice average medicine. Claims will be paid in full or on a pro rata basis depending upon the revenues available during a given period of operation, and the claims from a prior period will not be permitted to impinge upon the revenues of a succeeding period. The practitioner is forbidden to make additional claims upon a contract holder.

Established at the will of the majority, the corporation may be dissolved at any time after a year by the will of the majority.

ITEMS COVERED

The reader is now prepared for a more detailed examination of the items covered by the constitution and by-laws of Toledo Medical Service, Inc.

Glancing first at the regulations governing membership, we discover that two classes of membership are defined—professional members rendering service and beneficiary members, or subscribers, receiving service.

To be eligible for benefits, the subscriber must be a person regularly employed or engaged in a legitimate occupation which pays him less than $1,500 a year. (This is an arbitrary figure for Toledo and might be too high or too low in another community.)

At least during the initial period of operation, the subscriber must enroll as one in a group of 10 or more persons. (An apparently successful plan operating in Toronto, Ontario, suggests that individual memberships could be accepted with safety.)

Like the medical member, the subscriber must agree to observe the rules and regulations of the corporation and his contract will be written for the period of one year.

MEMBERS OF COMMITTEE WHICH FORMULATED TOLEDO PLAN

Members of the Toledo Academy committee which conducted the study on which the medical service plan described in the accompanying article is based consisted of the following members of the Academy, in addition to Dr. Douglass: Drs. L. N. Miller, F. N. Nagel, C. E. Hufford, W. A. Neill, E. W. Huffer, B. J. Hein, A. A. Applebaum, R. J. Borer, A. L. Bershon, Bernard Botsch, A. A. Brindley, W. W. Beck, T. H. Brown, L. I. Clark, M. W. Diethelm, Paul Ensign, Karl Figley, C. L. Felker, Will Gardiner, E. B. Gillette, W. W. Green, T. C. Kiess, C. S. Mundy, F. P. Osgood, S. H. Patterson, H. M. Scott, R. H. Snyder, Dale Wilson, and R. C. Young.

The subscribers, upon the presentation of their credentials, may claim service for themselves, their marital partners, and dependent children under 18 who are unmarried and living at home. The Toledo schedule of medical service premiums (still subject to last minute changes) sets the fee for the subscriber at $2 a month; for the first dependent, $1.50 a month; second dependent, $1 a month; third dependent, 50 cents a month, and contemplates $5 a month as the family maximum regardless of the number of dependents over three.

Voting privileges are withheld from the subscribers. They may register complaints with the administrative officers of the corporation but will have no voice in the actual conduct of its affairs.

The administrative structure of the corporation provides many checks and balances for the maintenance of a high order of professional control.

A board of nine directors, elected by the professional members, determines all general policies, appoints all necessary committees, hears all appeals by subscribers or the professional members, controls funds, appoints a medical director to be in direct charge of corporation business, chooses all other administrative officials, and admits new professional members and new subscribers. The directors serve without compensation.

MEDICAL DIRECTOR'S DUTIES

The medical director, who is eligible for full or part-time salaried service at the discretion of the board, is charged with the duties of providing for the examination and admission of subscribers; providing for medical histories and necessary professional records and consultation; reviewing medical problems and professional dis-

agreements; reviewing claims presented by professional members, and paying professional claims according to the policies established by the board.

In considering the scope of the medical benefits which Toledo Medical Service, Inc., allows its subscribers, it is important to note that certain exceptions are taken to the general rule that "all necessary medical and surgical services are to be provided".

The writer quotes verbatim from the by-laws covering exceptions:

A FEW EXCEPTIONS

"The physician shall not be required under any circumstances to render (nor shall he be compensated for) medical, surgical, consultation, or other services with respect to the following: Radium emanation; deep X-ray therapy; abortion (except therapeutic); insanity or epilepsy or any venereal disease including syphilis (Note—this clause is to be reworded); intoxication or any condition arising in the perpetration of a felony; any intentionally self inflicted injury, whether the member be sane or insane; treatment of tuberculosis after diagnosis has been made; any sickness or disability cared for at government expense; any injury or disease or the result of injury or disease which under the laws of the State of Ohio is at the time compensable or adjustable pursuant to the provision of any 'Workman's Compensation' or similar act; any injury sustained while driving or riding in an airplane which is not a common carrier, or any race or speed contest, or any injury or sickness sustained or suffered while the member is engaged in naval or military service in time of war".

The Toledo Academy has heard criticism that some of these exceptions, such as the clause excluding the treatment of tuberculosis, are not consistent with the claim that Toledo Medical Service, Inc., offers a complete health service. With this attitude we are not in disagreement, but our committees and membership felt that it would be wisest, at least during the initial period of operation, not to let the corporation "bite off more than it could comfortably chew". The exclusions represent the most expensive and uncertain medical services—a field in which the most careful exploration is indicated. It is hoped that some of the conditions now listed among the exceptions may become eligible for benefits at a later time.

In other words, we believe that until Toledo Medical Service, Inc., has become safely entrenched in its new field, we owe it the benefit of the doubts. As a matter of general policy, it is always better to advance slowly than to take a vulnerable initial position.

Complementing the exceptions, Toledo Medical Service, Inc., specifies certain limitations whose purposes will be obvious to the reader.

Surgery during the first year of operation is to be limited to that which is termed "emergency". Ground is left open for the inclusion of elective surgery at the end of the first year. Obstetrical service will not be allowed for 10 months following the acceptance of the subscriber, and medical service will not begin until 30 days have elapsed from the date of the subscriber's admission.

LIMIT ON NUMBER OF CALLS

Let us now examine the device by which the practitioner is protected against unreasonable demands for service and the complementary provision which places all needed care at the disposal of the subscriber when an urgent situation arises.

A clause of the by-laws limits the number of office calls to 24 in any one year and the number of home calls to 12 in any one year, but qualifies the rule as follows: "If the subscriber is confined to bed on the order of the attending physician for a period exceeding 12 days, and if the attending physician so requests, the medical director will have the power to increase the number of home calls to all those necessary".

This, the Toledo Academy submits, strikes a perfect balance between justice to the practitioner and justice to the subscriber and exemplifies the excellent medical philosophy that the medical needs of the patient are best dictated by the attending physician.

In closing this necessarily limited review of Toledo Medical Service, Inc., the writer desires to stress the validity of the voluntary insurance principle as a basis for approaching the medical problem of the low-income group.

VALUE OF PRE-PAYMENT METHOD

The quotations following are from the writer's

OFFICERS AND DIRECTORS ELECTED BY ACADEMY MEMBERSHIP

By special vote, the Toledo Academy of Medicine elected the following as members of the Board of Directors of Toledo Medical Service, Inc.: Dr. Douglass, Dr. L. D. Miller, Dr. Dale Wilson, the original incorporators; Dr. W. A. Neill, Dr. E. W. Huffer, Dr. F. N. Nagel, Dr. S. H. Patterson, Dr. A. L. Bershon and Dr. H. K. Beckwith. Dr. Douglass was elected by the board as president of the corporation. Dr. Huffer was selected as secretary and Dr. Miller as treasurer. The officers will act in an administrative capacity until a medical director is chosen.

address with which the plan of Toledo Medical Service, Inc., was presented to the membership of the Toledo Academy:

"We cannot, of course, raise the poor man's income to the point where it will always be possible for him and his family to see a doctor when one is needed.

"Nor can we require him to budget in advance for future care given on the old basis of a dollar paid for a dollar of service given. No man can know exactly what the future has in store for him. He cannot know when sickness will overtake him and he cannot know how sick he will be when sickness comes. No actuary lives who can strike an average of medical cost facing one isolated individual in any given period.

"What, then, is left but a scheme of insurance?

"Insurance involves the creation of a group, and within a group the actuary's tables of averages **do** assume objective meaning. Costs can be reckoned and spread thin enough for a limited pocket-book. The poor man can afford to be healed of his sickness and the doctor who heals him can look confidently forward to a return for his services."

We of the Toledo Academy hope that Toledo Medical Service, Inc., will have the most modest sort of beginning.

We want it to succeed, we believe that it can and will succeed, and we shall be ever vigilant to defend it against sabotage from any quarter, but the kind of success we covet for it is the success that represents the slow, substantial flowering of intrinsic merit.

There will be no jobs for high-pressure salesmen in Toledo Medical Service, Inc.

We want it to sell itself.

And we think it will.

Biological Photographic Convention

The ninth annual convention of the Biological Photographic Association will be held September 14-16 at the Mellon Institute for Industrial Research, Pittsburgh, Pa. The program will be of interest to scientific photographers, scientists who use photographs as an aid in their work, teachers in the biological fields, technical experts and serious amateurs. It will include discussions of motion picture and still photography, photomicrography, color and monochrome films, processing, etc., all in the field of scientific illustrating. Up-to-date equipment will be shown in the technical exhibit and the print salon will display the work of many of the leading biological photographers here and abroad. Further information about the convention and the association may be obtained from the Secretary of the Biological Photographic Association, University Office, Magee Hospital, Pittsburgh, Pa.

Dr. Zuck Is Named Director of Brush Foundation, Succeeding Dr. Todd

Dr. Theodore T. Zuck is the new director of the Brush Foundation, Cleveland. He has been acting director since the death of Dr. T. Wingate Todd. Dr. Zuck has been actively engaged in research for the Foundation since the late Charles F. Brush established it in memory of his son in 1929. A native of Marion, Dr. Zuck graduated from Western Reserve University School of Medicine in 1928. Following internship at Lakeside Hospital, he was successively instructor in anatomy, senior instructor, assistant professor and acting professor at Western Reserve. He is a member of Alpha Omega Alpha, Sigma Xi, Ohio State Medical Association, American Medical Association, Association for the Study of Internal Secretions, the New York Academy of Science and the Medical Library Association.

William W. Greulich, Ph.D., of the department of anatomy of Yale University School of Medicine, will be associated with the Foundation as research adviser. He has written considerable on subjects dealing with human developments. Born in Columbus, Dr. Greulich was graduated from Kenyon College in 1926, received his M.A. from the University of Denver and his Ph.D. from Stanford University.

Sons of Ohio Physicians Win Special Honors at Western Reserve

Two sons of Ohio physicians recently won major honors at Western Reserve University School of Medicine. Jacob B. Tuckerman, Cleveland, was awarded the senior prize in surgery, the gift of Dr. Elliott C. Cutler, formerly of the Western Reserve faculty, now of Harvard University, and also the senior prize in obstetrics, the gift of the late Dr. Edwin C. Garvin, Cleveland. R. Wenner Machamer, son of Dr. Roswell F. Machamer, Tiffin, a freshman, was awarded the Dr. Herbert S. Steur Memorial Prize for special work in anatomy.

Hospital Service Plan Committee

A special committee of the Ohio Hospital Association has been appointed to guide the formation of hospital service associations under the provisions of Senate Bill 181 passed at the recent session of the State Legislature and effective July 12. Members of the committee are: Clyde A. Hyre, associate director, Miami Valley Hospital, Dayton, chairman; Miss Mary Yager, Woman's Hospital, Toledo; Worth Howard, City Hospital, Akron; Robert A. Mills, Youngstown Hospital Service Association; Dr. Harry L. Rockwood, Mt. Sinai Hospital, Cleveland, and John A. McNamara, executive director of the Cleveland Hospital Service Association.

President of State Association Cites Dangers of Wagner Health Bill at Hearings Before U.S. Senate Committee

ON June 1, Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, appeared before a sub-committee of the United States Senate Committee on Education and Labor, meeting in Washington, to voice the opposition of the State Association to enactment of Senate Bill 1620, the so-called Wagner National Health Bill.

Among the members of the sub-committee are Senators Donahey and Taft of Ohio. On May 25 and 26, representatives of the American Medical Association appeared before the sub-committee to present the views of the House of Delegates of the A.M.A. (see pages 2289, June 3, 1939, issue of *The Journal of the A.M.A.*). Although hearings are being continued, present indications are that the Wagner proposal will not receive final consideration during the present session of Congress but undoubtedly at next year's session.

Official policy of the Ohio State Medical Association as formulated by The Council and approved by the House of Delegates at the 93rd Annual Meeting in Toledo, May 3 and 4, was used by Dr. Smith as the basis for his remarks which were as follows:

* * * * * *

PRESENTATION OF DR. SMITH BEFORE U. S. SENATE COMMITTEE ON WAGNER NATIONAL HEALTH BILL

"AS a preface to certain remarks concerning Senate Bill 1620 known as the National Health Bill, permit me as President of the Ohio State Medical Association to state that for many years the medical profession of Ohio composed of more than 6,000 physicians, residing and practicing in the State of Ohio, have maintained that the health of the people is a direct concern of government and that governmental responsibility is not discharged unless the government maintains at least an active interest in disease prevention and all illness, which by its presence may affect the health of the community where it is found. Just as we are strong in the belief of that principle, we are likewise strong in the belief that the responsibilities for public health administration and professional care of the individually ill patient are primarily those of the local community and the individual practitioner of medicine. We of the medical profession point with pride to the fact that we have always been leaders in the establishment of public health safeguards and that the primary purpose of all of our activities is the lessening of the hazards of illness.



DR. SMITH

"We have decreased the incidence of illness by initiating, sponsoring and cooperating with programs setting up all types of health safeguards. That this statement is accurate is attested by a comparison of today's vital statistics with those of a decade ago. As we have decreased the incidence of disease we have thus lessened its hazards.

"The spirit of friendly competition among the members of the medical profession fosters and stimulates the personal initiative of every doctor and causes him, by study, to constantly strive to make a better doctor of himself. This healthy, most valuable, and necessary state of affairs is the direct result of the fact that as medicine is practiced in the United States, no part of the doctor's responsibility to his patient is diverted to any type of supervising or directional authority. This personal initiative is the dominant and vital factor which has led, and is leading, us in our steady progress toward a better understanding of disease. Thus again we are lessening its hazards. That the efforts of the medical profession, particularly the American, have met with a marked degree of success is evidenced by the fact that life expectancy of the citizens of this country is greater today than it is or ever has been in any other place in the world. Moreover, the American people are receiving better medical care than the people of any other nation.

"The medical profession has far outstripped all others interested in contributing to the social and economic progress of the world, for we are making it possible for a constantly greater num-

ber of people to reach an advanced age without physical or mental dependency. Satisfactory adjustments have not as yet been made that will assure these people either social or economic independence. Permit me to quote the following statement made by Dr. Haven Emerson, an eminent public health authority: 'We are now in fact the possessors of better general health, are less afflicted with disease known to be preventable, are more secure in the survival and growth of our offspring to maturity, and have an average expectancy of life greater than that of any population in the history of man.'

"This achievement is not accidental or a mere coincidence. It is the result of the **present completely satisfactory partnership of representative government and the practitioners of medicine**, and could have resulted in no other way.

"The purposes of Senate Bill 1620 as stated in paragraph one would entirely destroy this desirable partnership which has been of such great benefit to the citizens of this country, for through the provisions and wide authority granted in the body of the bill, **a centralized federal bureaucracy would be created that directly or indirectly would completely dominate all things medical, from the care of the individually ill patient to the education of doctors.**

"As the official representative of the Ohio State Medical Association, may I urge that for that reason, if for no other, you voice your disapproval of this most dangerous proposed piece of legislation.

"Let us now briefly consider several sections of this bill. Title 5, Part 1, provides for an expansion of maternal and child health services by indirectly placing in the hands of one individual, namely, the director of the Children's Bureau, in the Department of Labor, the opportunity of interpreting the purposes of this bill, determining the methods of carrying out those purposes, and after 1942 provides him or her with an absolutely unlimited fund to carry out his or her program.

"By implication the expansion of this program is to be practical, carried on only where needed, and adapted to local conditions, but broad powers granted by this bill to this one individual **allow him or her to determine the practicability, the need for the plan, and the extent to which it shall be adapted to local needs, for all state plans must meet with his or her approval.**

"'There is nothing in the bill which requires the director to give any consideration whatever to the ability or desire of any of these people to take care of their own problems. The possibilities of a dictatorial bureaucracy as provided in this single section is completely undemocratic, and the placing in the hands of any one individual—even the best trained of doctors—such complete supervision of the health of all children, potential mothers and mothers would subject their physical welfare to unwarranted and absolutely unnecessary hazards.

"There are a number of other serious objections to, and bad provisions in, this proposal. In my opinion **one of the most serious is the so-called grants-in-aid on a matching basis.** This policy, although not new, is essentially unsound for the following reasons:

GRANTS-IN-AID POLICY UNSOUND

"It results in infringement on the right of the several states by the Federal Government. It encourages extravagance and waste. It coerces the several states into taxing and appropriating for activities which are unnecessary in some states. It lessens the ability of some states to do things for themselves. It creates what amounts to a system of triple taxation. It places practically complete control of activities so financed into the hands of the Federal Government despite the fact that the states provide part of the money.

"In general, so-called grants-in-aid are not 'in-aid' but are only the return by the Federal Government to the state of money taken from its people through Federal taxation, directly or indirectly, at a price whereby the state surrenders its rights and permits the Federal Government to determine how and for what such funds shall be spent. Too often such grants are regarded as a Federal gift and consequently the taxpayer is less vigilant as to his rights and as to how the money is spent than he is in connection with local expenditures and locally administered activities.

"Provisions of Part 2 of Title 5 dealing with medical services for crippled children and other physically handicapped children, and Part 1 of Title 6 dealing with the expansion of Public Health Service, are open to the same type of criticism, for these are equally all inclusive and are all powerful in the delegation of authority. Even though we should grant that the basic principles and ideals of the Wagner Bill were correct, duplication of effort and authority of each of the various sections of the bill if carried out would absolutely defeat its aims and ideals.

NEED MUST BE CONSIDERED

"This problem of medical relief, we believe, is rapidly approaching a satisfactory answer through the present efforts of the medical profession and cooperative efforts of governmental agencies. We have a right to expect further interest and activity on the part of governmental agencies in the matter of public health. Some expansion of programs of maternal health, child welfare and routine public health services may be necessary, but **expansion of these services must be orderly, definitely adapted to local needs, and carried on in cooperation with the medical profession, for we are more familiar with the problems of health than any other group.**

"We would not be so foolish as to contend that

the Federal Government never should use its resources to assist the individual states. In times of dire emergency, states which are in actual need of financial assistance for health and medical activities as well as others should be provided with such assistance in as unencumbered a manner as practical. These cases should be judged on an individual basis. All states may not need Federal assistance. **Simply because one or several states are in need of assistance from Washington certainly does not justify imposing on all states a permanent system of subsidized and Federally-controlled medical relief like the expansive program called for by the Wagner Bill.**

"For example, we have no real emergency in Ohio in so far as medical relief is concerned. Our people are and have been taken care of. Millions of dollars in state and local funds are being expended annually in Ohio for official public health work, care of the disabled and handicapped, care of those injured in industrial accidents, and for medical service for those unable to pay for such services. Ohio has 20 state welfare institutions efficiently maintained and operated for the institutional care of unfortunate citizens. The state is adequately supplied with hospitals, medical centers and clinical facilities. Almost 9,000 physicians are in the active practice of medicine in Ohio. There are, at present, 198 local health departments well-manned and operating efficiently under the guidance of the State Department of Health. Under the Department of Public Welfare, Ohio's dependent children and widows, the crippled and the blind, are being supplied with medical attention at public expense. In the large urban centers medical societies are initiating medical service plans to assist the low-wage earner in budgeting for medical care or for protecting himself and his family against the costs of sickness by voluntary prepayment arrangements.

PRESENT PROGRAMS ADEQUATE

"It is a fact that some of the activities enumerated have been financed in part through Federal funds. However, we are of the opinion that these programs at present are adequate to meet Ohio's need, and that there is no need for a broad expansion of Federal assistance such as proposed in the Wagner Bill. **We know that medical care if under bureaucratic control as provided in each of the several sections of this bill would deteriorate and health standards be lowered.** As our only interest is the maintenance of our present high standard of health, we urge that for the sake of the health of all people you will voice your disapproval of this bill.

"In that portion of the bill designated as Title 12, there is proposed a broad expansion of hospital facilities. It would be well to attain a complete utilization of present general hospital facilities before contemplating any expansion program, and additional facilities should be provided only after a definite need is proved. I believe that of this entire bill that portion which has been given the least consideration by the proponents of the bill is the only one which is worthy of serious thought. I refer to the evident need for an increase of facilities for the institutional care of infective tubercular cases and of those who are mentally defective.

"Title 13 is another addition to the Social Security Act which is for the purpose of extending and improving medical care, including all services and supplies necessary for the prevention, diagnosis and treatment of illness and disability, and empowers the Social Security Board (a lay group) to develop more effective measures to carry out this purpose, including the training of personnel. They are directed, and properly so, to pay particular attention to those in rural communities and those sufferng from economic distress, but **there is not the faintest suggestion that their plan of medical care shall not include all citizens.** In addition, they have been given funds sufficient to carry out any plan of medical care that they may wish to develop in accordance with their own interpretration of the purposes of the act. **Has there ever been in the history of legislation a more all-inclusive delegation of authority, a more unlimited appropriation of the funds of the government, or anything more dangerous to the health of our citizens, present and future?** Ecclesiastic and governmental supervision of medical care have been tried in the past and, yes, are being tried today with the uniform result that there is a definite lowering of health standards for all people, and a consequent marked increase in the hazards of illness.

WHAT PROFESSION IS DOING

"Medical care today is more costly than it has been in the past, but at no time has its unit value been so great, or have people received so much for money spent as they do today. This increased cost is the result of the necessary employment of costly technical, diagnostic and therapeutic procedures (X-ray and radium for instance). This increase in total cost of medical care has emphasized the fact that there is an inequality in the availability of medical care, particularly noticeable in what might be called the low or limited income group.

"The medical profession is more keenly aware of this problem and more eager to find its proper solution than any other group. In at least six communities in Ohio the doctors of those communities are preparing and putting into effect medical care plans which will guarantee to the subscribers of the plan an absolutely complete medical service at a cost which they can easily afford to pay. Plans of this sort are being put into effect throughout the country by doctors of

the community for the benefit of the health of their people. Although these plans may, and frequently do, mean a definite financial sacrifice by the doctor, these plans are meeting with the universal approval of the profession because it is realized that by this method we are able to see disease earlier in its course and are better prepared to meet it. Successful operation of these plans means there is immediately available to all people the sum total of the medical knowledge of the community, not simply that of a small group of doctors. We are better prepared and more advantageously situated to answer this problem of the apparent inequality in the distribution of medical service in a way that will be of continuing benefit to all people than are the members of any other interested group.

"The supervision, as provided in this portion of the bill, of all things medical for all people by any board, particularly a lay board, will in the light of experience and recorded history be followed by a definite deterioration in both the quality and availability of medical care, and is absolutely contrary to the spirit of personal initiative and freedom that are the very foundations of the Republic.

ENCOURAGES COMPULSORY INSURANCE

"Title 14 is another addition to the Social Security Act and can only be interpreted as a very broad enabling act, allowing for the establishment of a system of compulsory sickness insurance or in the terminology used in the bill, 'Temporary Disability Compensation'.

"Although the Wagner Bill does not specifically establish a Federalized system of compulsory sickness insurance, it encourages the establishment of such systems by the individual states. While it focuses attention on the needy, the bill is applicable, nevertheless, to **all classes of people.** Nothing in the bill limits the medical care provided for to indigents or even to persons of moderate means. Nothing in the bill defines the particular type of medical service that is to be provided. **It is a time-tested axiom that who supplies the money, dictates the policies.**

"Therefore, it would seem apparent that the Federal agency handling the money and dictating the policy would be at liberty to refuse to furnish funds to any state, or approve the medical care program adopted by any state, unless such program happened to meet its ideas of social economics, which might include compulsory health insurance. In the last analysis, therefore, any state program for medical care set up under the provisions of the Wagner Bill would not be a 'state' program but would be a 'Federal' program—or at the most a 'Federal-state' program.

"Boiled down, the Wagner Bill is a coercive measure, providing cash incentives to those states which are willing to yield to Federal dictation, and penalties for those who refuse to do so.

"It is a well-known fact that government-controlled medical service, which is what compulsory health insurance really is, is quite likely to produce low standards and poor medical care, and to afford an incentive for careless and incompetent work. **Government-controlled medicine at its best is not good enough for the American people and certainly is not comparable to that which is being furnished under the present system,** the essence of which is quality, personal initiative and personal responsibility.

NO SOLUTION FOR BASIC EVILS

"Senate Bill 1620, at its best, is **only in effect a palliative measure.** The additional money which would be spent under its provisions should be expended in efforts to solve the basic problems of health and sickness. Elevation of wage scales and minimization of unemployment would permit many families who now believe that the best of medical care is not available to them to obtain it without embarrassment. Poor nutrition, bad housing, inadequate clothing and fuel, mental depression, etc., are accountable for much illness. There is a direct relationship between preventable disease and these social and economic conditions. If these conditions were attacked scientifically, such disease would be conquered and illness would be diminished many fold.

"Let us encourage thrift and saving so that the contingencies of illness can be met. Let us reduce expenditures so that some of the money now paid out in taxes may be used by the individual for preventive and curative medical services and for protection against sickness and accident through the purchase of insurance against such hazards. Let us dissipate the economic confusion which has engulfed us and, in so doing, give some consideration to the fact that illness is the sequel of economic burdens and social problems rather than chiefly their cause.

"In conclusion, permit me to point out that I have not discussed the enormous financial implications of this bill with its almost unlimited appropriations. I know that you already have received competent evidence from many sources as to its absolute impracticability, particularly in view of the present financial condition of the Federal Treasury and the treasuries of many of the individual states.

"On behalf of the medical profession of Ohio, allow me to express sincere appreciation to the Committee for having permitted me to appear before you today to present a few reasons why the physicians of Ohio believe the Wagner Bill should not be enacted into law."

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Let's Have Ideas for the New Bureau of Public Education

It is hoped that every reader of *The Journal* will devote some thought and study to the article appearing in this issue over the signature of Dr. Parke G. Smith, the President, dealing with the opening of the new Bureau of Public Education in connection with the State Headquarters Office, Columbus.

For some time many members of the State Association have felt that the Association should be taking a more active role in the field of public relations, in molding public opinion and in presenting facts to the public. Because of the progressive and aggressive stand taken by the House of Delegates at the recent Annual Meeting at Toledo, the formation of a unit at the Columbus office to head up such a program has become a reality.

As pointed out by Dr. Smith, the Bureau is starting at scratch. It has some excellent suggestions on file. Nevertheless, it needs additional recommendations. It must have the active cooperation of all members. Right now, members can be of much assistance if they will offer ideas—especially those members who have been insisting (and correctly so) that the Ohio State Medical Association cease hiding its light under a bushel and use modern methods of letting the public know what the profession is doing and about its views on some of the current complicated, confusing medico-social questions.

The Bureau of Public Education is your Bureau. Its success will depend on the kind of support you give it.

Nothing great was ever achieved without enthusiasm.—Emerson.

You Must Do Your Part in Changing Public Opinion

With well-planned attacks coming regularly from Washington as well as from certain well-endowed foundations, it behooves every physician in Ohio to do his bit. Truly medicine must mobilize!

The citizens of Ohio generally have a high regard for their own personal physician but many of them look upon organizations of doctors as labor, trade or business groups—as pressure blocs with some personal ax to grind. With this handicap and with the emergency that now exists, the salvation of the people's interest in health depends upon what each individual physician does to combat the ideas that medicine has fallen down and that doctors, as a group, are no longer true to their traditions or that even if they were, things have somehow gone haywire—to a point where only the intervention of the Federal Government will save the people from destruction.

Let each physician see to it that his noon-day service club has one good talk on this subject—a talk by someone qualified and competent to handle the subject intelligently and constructively. Let him see to it that his men's club at his church also is told the facts during the coming year. Let him talk to his parent-teacher group or get someone to do so. There are many similar groups who should be properly informed. If they are, the picture is bound to change.

Every physician should welcome a chance to talk before as many groups as possible on the dangers of the so-called "national health program", set up in the Wagner Bill, S. 1620, pending in the Congress. In each community series of letters to the editor might be prepared on the various phases of this topic. Effective pamphlets and folders which may be obtained from the Headquarters Office of the Ohio State Medical Association, or from other reliable sources, should be placed on waiting room tables and enclosed with monthly statements, if the individual physician desires.

However, a word of warning—in all this there should not be a word about what may or will happen to physicians. Something may be said about the sorry plight of the next generation of physicians. Many parents who would like to see their sons follow medicine as a profession should be vitally interested in this question. But, remember this—the public as a whole has little or no sympathy for the medical profession. Why? Do not physicians live in the best houses; drive the biggest cars; go fishing in Canada and in the Gulf of Mexico; send their wives and children to Florida during the cold months, and when they get tired of it all, retire to California to spend their old age in ease and comfort? Sure, we know these things are not so. But, the public thinks they are, and we do not have time—or breath—to argue them out of the idea. We'll get no place in a hurry trying to defend the medical profession. We must expend our energy in other directions.

For example, we can show the people that a national health program such as the one proposed simply will not work and that even if it would, it would soon be eaten up by the terrific

cost involved. We can show that with governmental obligations totaling $60,000,000,000 and with another war staring us in the face, we cannot afford to buy an untried experiment which would cost at least $4,000,000,000 annually—probably nearer $10,000,000,000 if the cost of the other two legs of the so-called social security program are any criteria. We can prove that governmental medicine means deterioration of health and medical standards; that the people will get inferior service; that mortality and morbidity rates will increase; that tax money will be squandered; that incentives to do good work will disappear.

Every physician must assume the responsibility for changing public opinion. No one can do it for him. It is the individual physician which some group of people in some community respects and loves. Therefore, his words are the ones which will count. Will you do your part?

It has become widely recognized that it is the duty of the medical profession to present to the public a clear and comprehensive review from time to time of the accomplishments of scientific medicine and an explanation of what conscientious and upright physicians are doing to promote the health of individuals and the community.—Northwest Medicine.

Judging a Senator By the Questions Which He Asks

Under the heading "Statesmanship or Demagoguery," the *Pittsburgh Medical Bulletin* of June 10 published an article dealing with the recent hearing in Washington on Senate Bill 1620, the so-called Wagner National Health Bill, at which representatives of the A.M.A. testified.

The article records briefly some of the statements made by A.M.A. witnesses and some of the heckling questions or statements made by some members of the Senatorial committee.

Following are some typical examples of how some Senatorial minds function especially if they are biased or the statesman thinks it wise to speak for the record:

"Ah, doctor, then your association is not in favor of 'poor' boys receiving a medical education, and stands for the continuation of the present system of educating the sons of the well to do?"

"How better can these states (i.e., southern and western states) seek the return to them from Detroit, Pittsburgh, Philadelphia, New York and Boston of money filched from the natural resources of these far removed states by northern and eastern capitalists?"

"Why, doctor, don't you know that in the largest city in my state men drop on the street and die like flies from silicosis?"

"I suppose, then, if we would permit your association to name the personnel you would be satisfied to help us to amend this bill."

The writer of the article from which the above were taken states that he "finds no reason to alter his sincere belief that the credited author of the bill under discussion and the majority of the committee who were present remain definitely committed to the current federal administration's program of extravagant spending of the people's money for increasing health, diminishing agricultural and manufactured commodity production, increased taxes and diminished per capita wealth."

He puts the timely and pertinent question: "After reading the following paragraphs, (those quoted above) what do you think?"

We might answer by saying: It's about time for everybody, including the doctor, lawyer, merchant, chief, etc., to begin to think—better yet, to act.

It has been definitely determined by certain of the governmental agencies that the reason some of our people are poor is because they have no money.—The Weekly Roster and Medical Digest, Philadelphia.

Words of Wisdom (sic) From the Learned Professor Winslow

Speaking of the Wagner National Health Bill, one of the most recent cracks against the enactment of the proposal "at the present time" comes from a surprising (to say the least) quarter.

None other than Professor C. E. A. Winslow, chief of Public Health, Yale University, thinks the time is not ripe for the passage of the Wagner Bill. Speaking before the Group Health Association of New York and commenting on group practice versus individual, Professor Winslow pointed out, according to the weekly news blurb of the Bureau of Cooperative Medicine, "that if the Wagner bill were passed at the present time, it would be put into effect with the private practitioner as the backbone of the plan". Added the Bureau's bulletin: "This, he said, would have a disastrous effect because it would lead to abuse."

Quoting directly from the learned professor's remarks, the publication stated: "The doctor is the only professional man who is allowed once he secures his state license to go unchecked for the rest of his life. The clergyman is checked by his parishioners; the lawyer by the courts, but there is no one to whom the doctor is responsible. It is a dangerous state for any human being, and doctors are, after all, human beings."

At one time, even the good Doctor Winslow would not have let down his guard by making such ridiculous statements. But time does move

on. Is the good doctor slipping a bit? Or, has he joined hands with those who think that the only way they can belittle the medical profession is by hitting below the belt?

Thanks for the compliments, doctor. The fact that the physician has survived the ages without excessive bureaucratic check-mating is a compliment, in our opinion. An admission that "doctors are, after all, human beings" from the camp of the enemy is certainly something. But, who in the hell (except Professor W.) is naive enough to think that the physician's patients don't check and double-check him?

Get out the brass knuckles, fellows, it looks like a catch-as-catch-can free-for-all.

One of the choice bits of information imparted to the Sub-Committee of the Senate Committee on Education and Labor at its hearings on the Wagner Health Bill was the statement by the research director of the National Chiropractic Association that "the difference between his profession and osteopathy is philosophical.

Population Changes And Their Relation To Medical Practice

Some interesting facts which dare not be overlooked by today's alert physician are set forth in "Problems of Ageing", a technical treatise on geriatrics by some 25 physicians, physiologists, et al, just published by Williams & Wilkins.

For example, these points are stressed: One-third of the population of the United States soon will pass the half-century mark. Average life expectancy, now 60 years, probably will never go beyond the 75 mark, even though cancer and infectious diseases may eventually be conquered, because bones will be unable to stand the pace of modern living and arteries will continue to harden. About half of the deaths today are caused by diseases of the circulatory system; 12.5 per cent from diseases of the respiratory system; 12.5 per cent from cancer; 8.5 per cent from kidney diseases; the rest from diseases of the digestive system or accidents.

Today the medical profession must realize that its most confusing problems center about the adult. Realizing this, the physician must keep two things in mind: (1) Be prepared to handle competently the diseases of middle and old age. (2) Encourage those of middle age and beyond to take advantage of periodic check-ups.

Hospitals, also, cannot disregard certain population changes, such as reduction in the birth rate, decreased morbidity in the lower age groups, and increase in life expectancy. It seems likely that hospitals need not be so concerned about enlarging maternity wards and increasing facilities for the care of children and young adults as about expanding facilities for the care of older persons suffering from organic and degenerative ailments.

Medicine cannot be static. It must keep pace with economic and social changes—in fact, with changes which medicine itself has created. Modern physicians dare not be static. Those who refuse to recognize changes and modify their methods to meet changing conditions are doomed to failure.

The way to gain a good reputation is to endeavor to be what you desire to appear.—Socrates.

Timely Reminders About Rules of the Industrial Commission

Recent correspondence between several members and the State Headquarters Office indicates a misunderstanding on the part of such members relative to regulations of the State Industrial Commission governing medical services and with respect to the legal responsibilities of the Commission.

The following points are offered in an attempt to clarify this situation, supplementing the article by Dr. McCurdy, chief medical supervisor of the Commission, in the May issue of *The Journal*.

First—Morally, a physician is obligated to render services in emergency cases regardless of the cause or origin of the injury or disability. The same goes for the hospital. The patient's welfare and safety should come first; determination as to who is responsible financially for the bill of the physician or hospital, second.

Second—Authorization must be obtained in advance from the Commission for operative treatment, other than first-aid or emergency operation, or after the emergency period has lapsed; for special physical therapy, X-ray treatments, etc.; for plastic and reconstructive surgery or open bone surgery; and for special or unusual treatments and special material, appliances and drugs.

Third—The Commission has absolutely no jurisdiction over a case and cannot grant authorizations in any case until a claim has been properly filed and approved by the auditing department with respect to the employer's coverage and by the legal department with respect to whether the injury or disability was received in the course of, and arising out of, the employe's employment.

Fourth—If a claim is rejected by the Commission on legal grounds, the employe will not receive compensation and the physician or hospital cannot be paid from the Workmen's Compensa-

tion fund but must look to the injured person for payment of the medical or hospital bill.

Fifth—After a claim has been accepted by the Commission as compensable, then the Commission may proceed to pay the physician who rendered first-aid or emergency treatment (even performed an emergency operation), if a satisfactory statement of the facts and treatment is filed by the physician; may authorize special treatments if the report of the physician proves them necessary; and may pay the hospital for necessary hospitalization provided the disabled claimant.

These constitute a general policy. Obviously, many cases have to be adjudicated on their individual merits. The physician must exercise sound judgment as to where the emergency and immediate necessary treatment stops and where special treatment requiring authorization by the Commission begins. Obviously, general rules and policies must be observed in order to minimize confusion and complications in the task of the Commission in handling more than 200,000 claims annually.

Unless an overwhelming majority of our members desires legislation and is willing to fight for it, we should proceed with caution in the introduction of new bills.—William J. Carrington, M.D., President's Annual Report, Medical Society of the State of New Jersey.

Public Apathy In Tuberculosis Program Points a Lesson

A news release issued several weeks ago by the National Tuberculosis Association, revealing a phenomenal decrease in the number of deaths from tuberculosis in 1938, contains something more than mere statistics regarding one of the nation's prime public health problems.

Reading between the lines of the article, these facts and conclusions seem apparent:

Tuberculosis still ranks as the No. 1 killer of persons between 15 and 45 years of age, although there was a decrease of almost 6,000 deaths for the entire country in 1938 (63,332 compared to 69,292) and a decline in the death rate per 100,000 from 53.6 to 48.6 per cent.

Although the nation-wide decrease in the death rate was 9.3 per cent, the decrease in Ohio was only 4.2 per cent, indicating more intensive work in Ohio is needed.

Although there is a growing appreciation on the part of the general practitioner of the importance of finding people in the early stages of the disease and the prompt segregation of all those infected, public interest is lagging.

The public is not nearly so aroused about the shocking death rate from tuberculosis today as it was some years back when the yearly toll of lives was more than 150,000. This indicates that public health educational campaigns dare not be spasmodic affairs. The campaign against tuberculosis certainly has been carried on more diligently and intensively over a period of years than most public health programs. Yet, even it has been confronted with public apathy.

The moral would appear to be: When a health education program has been determined to be sound and necessary, it must be carried on intensively day by day and stepped up as the ultimate goal is approached. Many of the new projects in the field of public health education have their place and must not be ignored. At the same time, the older ones must not be forgotten or neglected.

All there is to politics is getting people to see things your way.—Governor Julius Heil, Wisconsin.

If This Be Efficiency Perhaps We're Paying Too High a Price

An observing member has mailed us a clipping from the June 10 issue of the *Cleveland Plain Dealer*, headed "U. S. Investigating Firings by B.U.C."

Following are several pertinent, timely, also, in view of the pending Wagner National Health Bill, etc.) paragraphs from the article referred to:

"For three weeks a staff of federal investigators has been examining records of the Ohio Bureau of Unemployment Compensation to determine whether civil service laws have been observed in the turnover of employes, it was learned today.

"Since the Unemployment Compensation Commission was reorganized into the bureau and put under Republican control early in March, there have been approximately 800 changes in personnel.

"Herschel C. Atkinson, administrator of unemployment compensation, said today that the law has been observed in making all personnel changes.

"Atkinson pointed out that every expenditure made by the division must have the approval of federal authorities, even to the cost of a gooseneck lamp at $1.75."

Opines the alert member who supplied the clipping:

"Aside from the comment that might be made on the 800 employes necessary for the operation of this bureau and how many it would take to operate all the bureaus of like intent advocated by various and sundry, this article is a delightful illustration of what happens when part of the pocketbook is controlled by the Federal Government whose funds also come out of the taxpayers' pocket. The control through part financing of

health measures other than child and maternal and what else I don't know, would certainly be very delightful under such a setup. If this be efficiency perhaps we are paying too high a price for it."

Perhaps we shouldn't refer to a man as a chiseler if he accepted the benefits made possible through organized medicine yet refused definitely to identify himself with it. Still, wouldn't it be a decided understatement to merely say that such an individual was willing to go along for a free ride?—Bulletin of The Toledo Academy of Medicine.

None Falls Quite So Hard as the Bluffer When He's Discovered

One upon a time there was a prominent official of a prominent national organization who appeared before a Congressional committee to testify against the passage of an important piece of proposed legislation.

After he had made a vigorous attack upon the proposal, but perhaps not a very convincing statement, he was subjected to questioning by members of the committee. Much to the surprise of those attending the hearing, the aforesaid prominent official reluctantly admitted under fire that he had not read the bill. To say that his appearance before the committee did more harm than good would be putting it mildly.

The above yarn is spun for the purpose of driving home a real lesson. Ohio physicians are being called upon to address public gatherings on this and that. Never, never should a physician even attempt to cover a subject unless he is familiar with its various aspects. Certainly he should never attempt to talk about a specific legislative proposal unless he has digested it and is prepared to answer some of the anticipated questions which may be asked about it. None falls quite so flat as the bluffer when he is discovered.

Congress of Physical Therapy

The 18th annual scientific and clinical session of the American Congress of Physical Therapy will be held at the Hotel Pennsylvania, New York City, September 5-8. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians, August 30-September 2. Registration for the seminar is limited to 100 and is by application only. For information concerning the seminar and the convention, address American Congress of Physical Therapy, 30 North Michigan Ave., Chicago, Ill.

Ohioans Named to Prominent Offices at Recent A.M.A. Session

Dr. Charles W. Stone, Cleveland, one of Ohio's delegates to the American Medical Association, has been appointed a member of the Committee on Distinguished Service Awards by Speaker of the House, H. H. Shoulders, Tennessee. Dr. Stone fills the unexpired term of Dr. E. L. Henderson, Kentucky, resigned, ending in 1941.



DR. STONE

Ohioans elected officers or delegates of sections are: Dr. Robert S. Dinsmore, Cleveland, alternate delegate, Section on Surgery, General and Abdominal; Dr. Derrick Vail, Cincinnati, secretary, Section on Ophthalmology and member of the American Council on Orthoptics; Dr. A. Graeme Mitchell, Cincinnati, alternate delegate, Section on Pediatrics; Dr. Russell L. Haden, Cleveland, delegate and member of executive committee, Section on Pharmacology and Therapeutics; Dr. Carl J. Wiggers, Cleveland, vice-chairman, Section on Pathology and Physiology; Dr. Clyde L. Cummer, Cleveland, delegate, and Dr. Harold N. Cole, alternate delegate, Section on Dermatology and Syphilology; Dr. P. A. Davis, Akron, chairman, Committee on Section Exhibit, Section on Preventive and Industrial Medicine and Public Health; Dr. John T. Murphy, Toledo, secretary, Section on Radiology.

Columbus Academy Inaugurates Radio Broadcasts of Interview Type

"How's the Patient?" is the title of a 15-minute radio program being presented over WBNS, Columbus, each Monday night at 9:30, under the sponsorship of the Columbus Academy of Medicine. The programs are of the interview type, with some member of the Academy questioned each week on a subject of general interest to the public. On the first broadcast, May 29, Dr. George I. Nelson, President of the Academy, was interviewed on the subject, "Deaths in Wars of the Past." Speakers during June were: June 5, "Highway Accidents," Dr. Drew L. Davies; June 12, "Pasteurization of Milk," Dr. Marion L. Ainsworth; June 19, "Appendicitis," Dr. Robert E. S. Young; and June 26, "Hay Fever," Dr. Jonathan Forman. The program is being arranged by the Academy's special committee on Public Education, consisting of Dr. H. M. Clodfelter, chairman, Dr. Wynne Silbernagel, vice-chairman, Dr. Horace B. Davidson, Dr. Gilman D. Kirk and Dr. Robert E. S. Young.

Richland County Medical Society and Health Officials Initiate "Public Health Hour" Immunization Program

ANOTHER instance of the medical profession taking the initiative in the interest of public health is the recent action of the Richland County Medical Society in offering, with the cooperation of the health department of Mansfield and Richland County, a low-cost immunization program for the protection of the school children of the low-wage earning families of the county against diphtheria and smallpox. The plan, termed "Public Health Hour", was devised by the Public Health Committee of the Richland County Medical Society, consisting of Dr. Charles R. Keller, chairman, Dr. R. R. Black and Dr. R. D. Campbell. A majority of the physicians of the county have agreed to participate.

The following statement by the committee, explains the history of the program and the details of its administration:

SOCIETY FORMULATES PLAN

"For a long time some program for the immunization of children to preventable contagious diseases in Richland County has been desired. On March 22, 1939, in a letter to the health commissioner, Dr. R. C. Rehder, the Public Health Committee suggested a plan which would make it 'unnecessary to do any immunization by the Department of Health in Richland County'. To this end the Public Health Committee of the Richland County Medical Society in conjunction with the County Health Department have devised a plan which has met the approval of the majority of physicians and the Department. Most of the details had to be worked out in committee and it is sincerely hoped that all physicians will adopt the procedure suggested, thereby standardizing the program sufficiently to be more easily workable.

"The committee has studied a number of plans and many authorities and the program proposed by them represents as nearly as possible a happy medium of all disputed points regarding ages, materials and intervals of treatments, etc., using only safe and tried procedures.

POLICY REGARDING PROCEDURE

"The committee has arrived at the following conclusions:

"1. All advertising should be done chiefly by the Department of Health and other public spirited organizations.

'2. All immunizations should be done by the private physician in his office at a suitable hour, his "Public Health Hour" to be chosen by him, preferably one or more hours a week while school is not in session. (Example: Friday 3:30 to 4:30 P. M. or a Saturday hour.)

"3. That a list of physicians willing to cooperate and their public health hours be made known to the public.

"4. Suitable records should be kept, a certificate given to the parent and a report made to the Health Department where permanent records should be available for future reference. Forms for these records to be furnished the physician by the Health Department.

"5. In order to greatly simplify the educational work and avoid confusion the Committee has proposed the following procedures for diphtheria:

"Children from 6 months to 6 years of age to receive two treatments one month apart. The first should be Alum Precipitate Toxoid, the second may be the same or the Soluable Toxoid or Ramoid unit.

"Children between the ages of 6 and 12 years should receive two treatments one month apart of Soluable Toxoid or Ramoid unit.

"After the age of 12 years three treatments of Toxin-antitoxen at ten day intervals is recommended.

"The Committee believes that no Shick tests should be recommended generally; two treatments of toxoid being more practical and safer in a program of this type.

"Dr. Roy C. Rehder, Health Commissioner for Mansfield and Richland County, has offered to promote the program so far as his resources will permit. A leaflet with the following explanation will be given out at various times:

SERVICE PLAN ESTABLISHED

"The Richland County Medical Society has established an immunization service plan in an effort to make such service available to the children of the low-wage earning family. The following are required of a family wishing to share in this plan:

"1. A responsible member of the family must certify as to the family's income classification.

"2. Children in the family must be brought to the physician's office in a group by a responsible member of the family, and at a time specified in the schedule.

"3. Medical service under this plan will be on a cash basis.

"4. The fee schedule holds only for protection against diphtheria and smallpox, the Medical Society recommending a minimum of two injections for diphtheria.

INCOME GROUPS SET UP

"The following income groups are set up under this plan.

"1. There will be no charges in that group of families unable to pay for a physician's services.

"2. Where the family income has averaged $60.00 per month for the preceding six months the children will be cared for at a group charge of $1.00 per family group, and $1.00 for each subsequent visit of that family group.

"3. Where the family income has averaged between $60.00 and $80.00 per month for the

preceding six months the charge will be $1.00 per child for each child up to three; for any number above three there will be no additional charge. The same rate will apply to any subsequent visit of that family group.

"4. Private pay cases will make their own arrangements with their family physician.

TIME SCHEDULE SUGGESTED

"A list of physicians who have expressed their willingness to cooperate and their hours will accompany this leaflet. It will be necessary therefore for all physicans to acquaint themselves with this program and notify the committee or the Health Department at what hours they will be in their offices for this work. No names will be listed without signed permission.

"The fees are ridiculously low and physicians will suffer economic loss. This is necessary if we wish the program to succeed. However, the Committee feels that physicians should vary as little as possible from the routine. Should families be found that the proposed fees would be an obstacle, the solution should be found by some public spirited organization or individuals. The profession should not be expected to make further concessions.

"The Health Department has agreed to replace all material used on the free or part pay cases. The physicians will use their own materials in the beginning. Copies of the signed requests in each case should be retained and exchanged at the Department of Health for materials in units of ten. Ten properly completed certificates may be exchanged for materials for ten treatments.

"We have expressed our confidence in the physicians of Richland County and have promised that a sufficient number will cooperate to successfully carry on this program should the Department of Health and other interested groups persuade the citizens of the County to avail themselves of this offer."

Offers Eight Months' Urology Course

The New York Polyclinic Medical School and Hospital is inaugurating a combined full-time course in urology, covering an academic year (8 months), on October 1, 1939. It will comprise instruction in pharmacology, physiology, embryology, bio-chemistry, bacteriology and pathology, practical work in surgical anatomy and urological operative procedures on the cadaver, regional and general anesthesia (cadaver), office gynecology, proctological diagnosis, the use of the ophthalmoscope, physical diagnosis, roentgenological interpretation, electro-cardiographic interpretation, dermatology and syphilology, neurology, physical therapy, continuous instruction in cysto-endoscopic diagnosis and operative instrumental manipulation, operative surgical clinics, demonstrations in the operative instrumental management of bladder tumors and other vesical lesions as well as endoscopic prostatic resection.

Further information can be obtained by addressing Dr. F. H. Dillingham, medical executive officer of the School, 341-353 West 50th St., New York City.

Maternal Mortality Rate in Ohio in 1938 Falls 19 Per Cent

A striking reduction in the maternal mortality rate in Ohio in 1938 is revealed in statistics recently obtained from the Division of Vital Statistics, State Department of Health. For that year the number of maternal deaths per 10,000 live births was 37.8, as compared with 46.8 in 1937 and 49.1 in 1936. Comparable rates for the entire United States were 57 in 1936 and 49 in 1937. Provisional statistics compiled by the United States Public Service indicate that the national mortality rate for 1938 will probably be more than 10 per cent lower than the 1937 rate. The 1938 rate was 19 per cent lower in Ohio than in 1937.

Principle of Privileged Communications Involved in Court Decision

Statutes governing privileged communications between patient and physician were involved in an important decision rendered by the Ohio Supreme Court, June 7, No. 27169, (135 O. S. page 491), in the case of Baker, Appellee, vs. Industrial Commission of Ohio, Appellant. Syllabus of the opinion follows:

1. Under Section 11494, General Code, privileged communications between patient and physician may be either (1) by exhibition of the body to a physician for examination or treatment, or (2) oral or written communications between patient and physician. The physician may not testify in respect to either unless there is express consent by the patient or a waiver in reference thereto.

2. Where a patient voluntarily testifies that his right leg was free from boils and scaly condition before a certain injury but that thereafter it was all swollen up, sore and scabby, and that he was sent to a certain physician, a skin specialist, for treatment, there is a waiver in respect to the condition of his right leg and the physician may therefore testify on that subject.

3. Where such patient does not voluntarily testify in respect to any verbal communications between himself and the physician, there is no waiver in regard to any such verbal communications so as to permit the physician to testify on that subject.

Cincinnati—Dr. E. W. Mitchell is the commander of the Commandery of Ohio, Military Order of the Loyal Legion of the United States, which held its 56th annual dinner meeting recently.

Mid-Summer Examinations of State Medical Board Taken by Record Number of Applicants, Totaling 459

THE semi-annual examinations given by the State Medical Board at Columbus, June 6-9, were taken by the largest group of applicants ever to appear before the Board. Of the 459 applicants, 326 sought licenses to practice medicine and surgery.

There were 18 applicants for osteopathic licenses. Applicants for limited practice certificates numbered 115, including 7 chiropractors, 32 mechano-therapists, 3 naprapaths, 4 cosmetic therapists, 36 chiropodists and 33 masseurs.

Of the 326 medical students who took the examinations, 63 were from the University of Cincinnati College of Medicine; 61, Western Reserve University School of Medicine; 80, Ohio State University College of Medicine; 36, Eclectic Medical College, Cincinnati; 49, out-of-state medical schools, and 37 from foreign schools, of whom 4 were American citizens.

Results of the examinations will be announced at a meeting of the State Medical Board in Columbus, July 18.

Questions asked those who took the medical and surgical examinations were as follows:

ANATOMY

1. Describe and give exit from skull, naming branches of communication and distribution of glossopharyngeal nerve.
2. Describe the lymph drainage of rectum and anal canal.
3. Compare the capsules of knee and hip joint. Name all ligaments of the knee joint. Also, give arterial and nerve supply of knee joint.
4. Describe briefly the arterial supply of the lower extremity, naming the principal trunks, with the chief branches and distribution in each case.
5. Name the various regions of the abdomen and the principal structures contained in each.

PHYSIOLOGY

1. What conditions increase the lymph flow?
2. Discuss capillary circulation in relation to the color and temperature of the skin.
3. Give the application of physiological principles to the treatment of gastric ulcer.
4. What are the causes of cyanosis in pneumonia?
5. What is the evidence for tubular reabsorption in the kidney?
6. Discuss briefly the carotid sinus mechanism.
7. List the chief conditions associated with an elevation of the N.P.N. of the blood.
8. What factors are responsible for the flow of blood from systemic capillaries to the right auricle?
9. Discuss blood proteins, giving the normal albumin-globulin ratio.
10. What is the distribution of visceral sensations? Give an example.

CHEMISTRY

1. What is meant by the statement that carbon dioxide capacity of the blood plasma is (40) forty volumes per cent?
2. What is meant by fatty, hydroxyl and amino acids?
3. Define enzyme. Discuss the nature of enzyme action.
4. Discuss the blood chemistry involved in carbon monoxide poisoning.
5. How does the body maintain the level of blood sugar? Give range of fluctuations in health and disease.

BACTERIOLOGY, PATHOLOGY AND HYGIENE

1. Outline the procedures for the laboratory diagnosis of brucellosis.
2. Describe two methods for typing pneumococci.
3. Describe the specific biologic products available for the prophylaxis of:
   (a) smallpox (c) diphtheria
   (b) whooping cough (d) typhoid fever
4. Define, illustrate and compare active immunity and passive immunity.
5. Describe the microscopic appearance of an Aschoff nodule and list the anatomical lesions produced by rheumatic fever.
6. Classify arteriosclerosis and differentiate the various types grossly and microscopically.
7. Classify jaundice and discuss the laboratory tests used for their differentiation.
8. Discuss carbon monoxide poisoning, with symptoms and blood changes; give two common sources of its occurrence.
9. What is meant by a human disease "carrier"? Give two illustrations and describe how such individuals may convey disease to others.
10. What common infections may occur from an improperly guarded milk supply and what steps should a health officer take on discovering such conditions?

MEDICINE

1. Give three examples with the clinical description of symptoms following the eating of common foods to which the patient is allergic. How recognize the condition and give treatment (a) immediate, (b) prophylactic.
2. What is meant, geographically, in this country by the term "goitre belt"? What is the etiologic basis for such term and what prophylactic measures may be advised in this area?
3. Discuss the recent developments in the treatment of pneumonia. What appears to be the effects as to mortality and incidence of complications?
4. Discuss the relative importance of diet, exercise and drugs in the treatment of chronic nephritis with persistent albumin, asthenia and anemia.
5. Give the characteristic subjective symptoms in a case of gastic ulcer confirmed by occult blood in stools and X-ray, suggestive of a three months duration. Give treatment, drug and dietetic.
6. Discuss the etiology and treatment of "summer diarrhea" in a child of two years of age.
7. Give the objective symptoms of scarlatina in a child of eight years and outline treatment.
8. Give the symptoms and blood picture in a case of acute agranulocytosis; discuss the etiology and treatment.
9. What is meant by "insulin shock" in the treatment of psychiatric cases? Discuss selection of cases for its use and precautions.
10. Give the neurologic symptoms following (a) lead poisoning, (b) pernicious anemia and (c) syphilis.

SURGERY

1. Discuss pelvic cellulitis. Give pre-operative treatment. Give indication for surgical operation.
2. Give symptoms and signs of solitary abscess of upper lobe of lung. Discuss surgical management.
3. A mass about the size of a walnut is discovered in breast of a woman of forty years, how would you manage same?
4. Discuss the relative merits of anesthesia, spinal, inhalation, splanchnic in abdominal operations.
5. What is (a) a ranula, (b) epulis, (c) nevus? Give treatment.
6. How would you treat a fracture through the anatomical neck of the humerus? Give the anatomical reason why.
7. At what age would you repair (1) hair lip, (2) cleft palate? Why?
8. How would you treat a case of bleeding duodenal ulcer?
9. Describe the treatment of extensive body burns by tannic acid.
10. Give common sites, diagnosis and treatment of benign giant cell tumor of bone.

OBSTETRICS

1. Describe the management of shoulder presentation.
2. Name the sutures of the fetal head. How do they aid in diagnosing position?
3. Give indication for the use of forceps and mode of application.

4. How would you prevent perineal tears during labor?
5. Outline the care of the cord and navel.

DIAGNOSIS

1. Differentiate lobar, broncho and so-called "flu" pneumonia.
2. Classify nephritis and give blood findings of each.
3. Differentiate typhoid fever and undulant fever.
4. Differentiate agranulocytosis, thrombocytopenia and lymphatic leukemia.
5. Name at least four general conditions in which the eye exhibits diagnostic symptoms.
6. Differentiate so-called primary anemia and secondary anemias.
7. Name at least three conditions that may obstruct pyloric area of stomach.
8. Name organic cardiac irregularities.
9. Give symptoms of Tabes dorsalis and acute paresis.
10. Name all conditions in which spleen is chronically enlarged.

MATERIA MEDICA
(Regular)

1. To what class of drugs does nux vomica belong? What per cent of strychnine should the tincture contain? Give the dose and uses of strychnine sulphate.
2. What is the difference between irritants and counter-irritants? Name the most important of each.
3. Give the official preparations and dose of silver and incompatibles.
4. For what purposes are diuretics employed? Name two, with dose.
5. Tincture of belladonna, give physiological action, uses and dose.
6. Calcium preparations, give physiological action and uses.
7. Give the preparations of ammonium and doses.
8. Therapeutic management of epilepsy. Write prescription for same.
9. Give preparations of ipecac, with use and dose.
10. Describe the physiological action of antitoxin and vaccines. Under what condition would you employ them?

MATERIA MEDICA
(Electic)

1. Give indication for strophanthin. Give indication for its most important alkaloid strophanthin.
2. What is viosterol? Discuss its action and dosage.
3. What are indications for iris versicola, phytollaca and echinacea.
4. Give poisonous symptoms of digitalis, quinine sulphate and arsphenamine.
5. Give indication for thyroid. Give contra-indication.
6. Give five drugs used in bronchial asthma.
7. Name five drugs used in treatment of typhoid fever. Give indication for same.
8. What are indications of sulfanilamide? What drugs are incompatible with it?
9. Discuss use of liver.
10. Outline treatment of syphilis.

MATERIA MEDICA
(Homeopathic)

1. Name a remedy commonly indicated in
   (a) acute troubles incident to dentition
   (b) delayed dentition
   (c) non union of fractures
2. Differentiate three remedies indicated in erysipelas.
3. From what source is the remedy lachesis derived? What is its chief therapeutic field? Give its outstanding modality.
4. How is a drug proved? How is the 2 x trituration made?
5. Compare the mental symptoms of bell, gels, and aconite.
6. Describe the respiratory symptoms of ant, tart, and the type of patients more likely to exhibit these symptoms.
7. Compare the throat symptoms of proto iodide of mercury and bin iodide of mercury.
8. Name four commonly indicated remedies in pneumonia and give indications for one.
9. Name four remedies that might be indicated in acute poliomyelitis, and give indications for one.
10. Give indications for nux vomica.

SPECIALTIES

1. Differentiate: (a) psoriasis, (b) dermatitis exfoliativa, (c) syphilis.
2. Give treatment and management of (a) acute tonsillitis, (b) diphtheria, (c) quinsy.
3. Give treatment and management of trachoma.
4. Name the more common causes of urinary retention in the male, and give management.
5. Contrast the primary symptoms of gonorrhea and syphilis.

Ohio Public Health Association Elects New Officers at Annual Meeting

Dr. Charles A. Doan, professor of medicine, Ohio State University College of Medicine, was elected president of the Ohio Public Health Association at its 38th annual meeting, May 26, in Columbus. Other officers are: Dr. Kennon Dunham, Cincinnati, first vice-president; Mrs. George J. Blazier, Marietta, second vice-president; J. E. Hagerty, Columbus, secretary; C. C. Cook, Columbus, auditor; T. H. Dickson, Columbus, treasurer; Carlton S. Dargusch, Columbus, counsel, and Robert G. Paterson, Columbus, executive secretary. Governor John W. Bricker, counsel for the Association for many years, was named honorary counsel. The Association adopted resolutions favoring the following propositions: The erection of a building on the campus of Ohio State University to house the State Department of Health and its laboratories; the erection of an additional state tuberculosis sanatorium in the southern portion of the state, and legislation to permit county bond issues and levies for the building, equipping and maintenance of tuberculosis hospitals by a majority vote instead of 65 per cent as required by the present state law.

Fourth of July Fireworks Mishaps Continue to Take Heavy Toll

Records of the American Medical Association show that at least 25 deaths and nearly 8,000 serious injuries of all kinds resulted from fireworks accidents during the observance of Independence Day last year. These included approximately 300 eye injuries, 43 of which resulted in blindness in one or both eyes. Statistics were compiled from newspaper clippings and hospital questionnaires.

The figures for Ohio show one death; 526, burns and lacerations; 3, loss of vision of one or both eyes; 28, injury to the eye; 10, loss of finger, hand or other member; 18, internal injury, fracture or other serious accident. The total number of injuries was 585, compared with 353 in 1937.

Graduates Last Class

Thirty-six seniors, the last graduating class of the Eclectic Medical College, Cincinnati, received degrees at the final graduation exercises of the College at Memorial Hall, Cincinnati, June 9. Although the college will discontinue undergraduate education, Dean Byron H. Nellans announced that it will continue to exist to direct a research foundation for further study of plant and vegetable sources of medicines. Chartered by a special act of the Ohio Legislature in 1845, the College has had 4,668 graduates in 94 years, including 400 women.

In Memoriam

James Sterrett Caldwell, M.D., Cincinnati; Miami Medical College, Cincinnati, 1883; aged 89; former member of the Ohio State Medical Association and the American Medical Association; died June 14. Dr. Caldwell practiced in Cincinnati for 56 years. Surviving are a daughter and three sons, one of whom is Dr. J. Sterrett Caldwell, Cincinnati.

Alvin Henry Carr, M.D., Reading; Medical College of Ohio, Cincinnati, 1901; aged 69; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 22. Dr. Carr practiced in Reading, a suburb of Cincinnati, for 40 years. A member of the Medical Corps of the U. S. Army during the World War, Dr. Carr was commander of the local American Legion post. He was also active in Catholic circles and a member of the Catholic Knights of Ohio. His widow, a daughter and two sons survive.

Frederick C. Crawford, M.D., Toledo; Cleveland Medical College, Homeopathic, 1897; aged 66; died May 8. Dr. Crawford practiced in Toledo for 40 years. He was a member of the Masonic Order and the Presbyterian Church. Two sisters survive.

Alfred Friedlander, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1895; aged 68; member of the Ohio State Medical Association, Fellow of the American Medical Association, member of the American Board of Internal Medicine, the American Pediatric Society and the American College of Physicians; died May 28. Dr. Friedlander, a nationally known medical educator and writer, was Dean of the University of Cincinnati College of Medicine and chief of staff of Cincinnati General Hospital. He had been a member of the Cincinnati faculty for 29 years, having been appointed Dean in 1934. His first post on the faculty was assistant professor of pediatrics, to which he was appointed in 1910. In 1919 he was made professor of medicine. Dr. Friedlander was a Major in the Medical Corps of the U. S. Army during the World War, and held a Lieutenant-Colonelcy in the Officer's Medical Reserve Corps. Surviving are his widow, a daughter, a son, a sister and a brother.

Bertha Glaeser, M.D., Cincinnati; Cincinnati College of Medicine and Surgery, 1889; aged 79; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 5. Dr. Glaeser retired two years ago after suffering a broken hip. She had practiced in Cincinnati for 48 years.

Willis Monroe Hunter, M.D., Van Wert; Baltimore Medical College, 1892; aged 72; former member of the Ohio State Medical Association and the American Medical Association; died May 21. Dr. Hunter practiced for three years at Middle Point, Van Wert County, until his removal to Oklahoma in 1895. He returned to Van Wert in 1921, continuing in practice there until his retirement several years later because of ill health. He was a member of the Masonic Order and the Knights of Pythias. Surviving are his widow and a sister.

Gainor Jennings, M.D., West Milton; Cincinnati College of Medicine and Surgery, 1883; aged 79; former member of the Ohio State Medical Association and the American Medical Association; died May 15. Dr. Jennings practiced in Miami County for over 50 years. Active in politics, he had served as chairman of the Miami County Democratic Committee, was postmaster of West Milton in 1885, and in 1930 was his party's nominee for Congress from the Fourth District. Dr. Jennings also served several years on the West Milton Board of Education. A son survives.

John Collins Leever, M.D., Defiance; Miami Medical College, Cincinnati, 1880; aged 84; died May 13. Dr. Leever retired in 1905, after having practiced in Defiance for 25 years. He was a member of the Methodist Church. A daughter and a son survive.

William A. Marshall, M.D., Wharton; Starling Medical College, Columbus, 1898; aged 73; died May 12. Dr. Marshall practiced in Wharton for over 40 years. He was a member of the Methodist Church. Surviving are his widow, four sisters, and three brothers.

Robert T. Prine, M.D., Ripley; Medical College of Ohio, Cincinnati, 1897; aged 64; member of the Ohio State Medical Association and Fellow of the American Medical Association; died May 27. An active practitioner in Ripley and Brown County for 42 years, Dr. Prine was also prominent in the civic affairs of the community, and was legislative committeeman of the Brown County Medical Society. He was a vice-president of the Ripley National Bank, and for more than 30 years had been a leader in Masonic circles. Dr. Prine was a life member of the I.O.O.F. His widow survives.

William Charles Shriner, M.D., Cincinnati; Eclectic Medical College, Cincinnati, 1898; aged 67; died April 28. Dr. Shriner practiced in Cincinnati for over 40 years. He was a member of the Presbyterian Church and the Masonic Order Surviving are his widow, a daughter, a son—Dr. William T. Shriner, Cincinnati, a sister and a brother.

The Follow-Up of Delinquent Accounts

(Part 2)

STANLEY R. MAUCK

IN our preceding article on the follow-up of delinquent accounts, we emphasized that the first consideration should be the sending of regular monthly statements.

This procedure is necessary in order to gain a clear understanding of what constitutes delinquency in medical accounts. The great variation among physicians in the manner of handling their billing often makes it difficult to establish a fair basis for classifying medical delinquencies. In order to determine a definite condition of delinquency, it was pointed out that a series of three plain statements should be sent at regular intervals on the first of each month after service is rendered. If no response of any kind is received from the debtor during this three months' period, the necessity for prompt follow-up is apparent, as a delinquency clearly exists.

Delinquencies were indicated as falling into one of four classes: **First,** carelessness, or characteristic apathy toward professional bills; **second,** dissatisfaction either with the service or the amount of charges; **third,** economic handicaps making payment extremely difficult or impossible; **fourth,** delinquencies due to irresponsibility or "dead-beat" characteristics of the debtor.

GIVE DEBTOR BENEFIT OF DOUBT

Unless the circumstances surrounding a delinquency are known personally to the physician, the collection follow-up must be designed with the assumption that the debtor is an honest, well-intentioned person, who can and will pay his bills without undue pressure. This policy may postpone justifiable action of a more aggressive type against the irresponsible or "dead-beat" class of persons represented by group four. But at the same time it will avoid offense to the great majority of the doctor's clientele whose bills likely have not been paid due either to carelessness or apathy. It is better to have favored unjustifiably the debtor in class four than to have given offense to the patient in class one. Professionally and traditionally the physician is expected to render service to any worthy patient who appeals to him in need. He usually accepts them without regard to their financial responsibility. He does not know, as does a commercial firm, what the paying habits of his patients have been. He, therefore, cannot pursue a collection policy patterned after the procedure followed by the department store or the business firm. The ill will created by improper collection tactics may cause a physician to lose far more than the value of the delinquent accounts collected. This does not imply, however, that the physician should not take proper steps to protect himself against the unwarranted and abnormal shrinkage in the value of his accounts receivable. If he approaches the problem ethically and systematically, it is possible to reduce materially both the number and the amount of the uncollected bills which characterize physicians' accounts in general. **A mild initial approach with a gradual but steadily rising emphasis in the request for payment will increase the physician's income and afford a practical solution of his delinquent accounts problem.** If this practice is faithfully follower, the number of accounts ultimately turned over to a professional collector will be greatly reduced, the cash return will be better, and the relations between the physician and his patients will be less likely to be disturbed than will be the case if the accounts are neglected and handled in a slipshod, unbusinesslike method, which is so characteristic of the profession.

DETERMINE THE CAUSE EARLY

Regardless of the classification into which a delinquency falls, it is essential that the cause be determined early. There is no advantage to be gained by delay. **Depreciation in the value of physicians' accounts is rapid when payment has not been made within the first three months after billing date.** Statistics indicate that when accounts run ninety days without any word from the debtor, provided they have been billed regularly, they have lost 35 per cent of their original value. Only the accounts that come in the first classification yield any large percentage of return after the expiration of such a period. All other accounts become a real problem and demand specialized efforts to induce collection, and the sooner such a procedure is inaugurated the greater will be the physician's chance of collection.

After three plain statements, with no response, ordinary statement procedure should give way to more positive methods. It is not possible to lay down a standard pattern for the follow-up of delinquent accounts. Different approaches, which reflect the individual ideas of different creditors, may be equally effective. **The essential consideration is that some definite form of collection follow-up be inaugurated without delay and systematically followed until the account is definitely disposed of.**

Our suggestion is that on the 15th of the

month following the third plain statement, another statement be sent on which is penned diagonally across the face the simple appeal of "Please". Coming in the middle of the month it attracts attention, and even the mild emphasis of the request cannot fail to carry its implication to the conscientious and responsible debtor. Many of those in the first classification will likely respond to this initial pressure. If none is received, however, then on the first of the fourth month another statement may be sent with a little more pointed pen and ink notation such as "Won't you give this your attention, please". Some will disagree with this suggestion for special notations on the statements. However, a broad experience in handling professional accounts indicates the effectiveness of this appeal. It is designed to avoid any possibility of offense, and will usually bring results from the better class of the physician's clientele. Such notations are much more dignified and personal than the "canned" printed stickers, in many variations of context and gaudy color, that frequently are used because of their convenience.

Pen and ink notations on statements are definitely objectionable if they take the form of a "demand" or embody hard-boiled phraseology. They are recommended only for use as polite or gentle reminders of the condition of the account and as a preliminary to more specific follow-up in letter form. Some will argue that letters should be used immediately following several plain statements. There can be little objection to proceeding with the letter campaign, if several statements invoke no reply. The pen and ink notations may appear extremely mild, but they are simple and conveniently handled and therefore encourage a degree of collection follow-up which, in itself, is not without effectiveness. If physicians would do nothing more than carry through with a series of regular plain statements and pen and ink notations, their volume of unpaid accounts would be materially reduced. If they will then give added time and attention to a letter campaign on the remaining delinquencies, the results will be decidedly more gratifying.

ENVELOPES FOR CONVENIENCE

A collection aid that is widely used in almost all collection work is the self-addressed, postage-paid envelope. Five hundred or a thousand of these envelopes with the standard Post Office form (Sec. 510 P.L.&R.) may be printed for a very nominal cost. These envelopes are a convenience to the patient and their use will prove effective. It is a matter of opinion at what point such an envelope enclosure may best be used. Some advocate its use with the second plain statement. Others may wish to include it with the statement bearing the first pen and ink notation, to give added emphasis. It may also be repeated in successive steps of the follow-up.

THIS is the sixth of a series of articles on "Office Problems of the Physician" which will be presented in Volume 35 of The Ohio State Medical Journal.

Mr. Mauck, author of the series, serves as executive secretary of the Columbus Academy of Medicine and as director of the Columbus Bureau of Medical Economics. Previously he operated a professional management service for physicians.

Mr. Mauck invites questions or comments pertaining to the subjects discussed in these articles, and suggestions as to possible topics for future articles. Communications should be addressed to him at the Columbus Academy of Medicine, 79 E. State St., Columbus.

Another collection technique is the variation in statement form. This is usually handled by using slightly tinted paper, possibly blue or green. Also a tinted envelope may be adopted for the second or third statement. This change in the color scheme has a definite psychological effect upon the debtor, in many instances. Collection managers in commercial fields frequently vary either the color or the form of each statement sent to an account. Color variation, properly modified, may be used as an effective stimulus to prompt payment.

WATCH WORDING OF LETTERS

Too much emphasis cannot be placed upon the character of letters written by the doctor to his delinquent patients. Collecting by correspondence is an art, and the right kind of letters will produce splendid results. Letters of the wrong kind are likely to be both ineffective and offensive. At this stage in the collection procedure extreme care should be given to the composition of the letters. It is very important that the patient's own interest, rather than the doctor's, be represented in the communications. The typical example of the wrong type of letter is the one that says, in substance, "I have some heavy obligations to meet this month and I would greatly appreciate a check from you on this account by return mail". Variations in this type of appeal are all too frequent in the physician's communications with his patients. The reaction is likely to be the opposite of that desired. By comparison, the patient may justifiably argue that his own lot is much worse than the doctor's, that his own obligations are more pressing. An appeal for payment on a "help the doctor" basis is a

CANNED FOODS AS PROTEIN SOURCES

● The primary function of protein in foods is that of a building material essential for tissue growth and maintenance. In 1897, Rubner postulated that all proteins are not of equal value in nutrition (1). Since that time, considerable attention has been directed towards the establishment of the types and amounts of protein required by man.

Chemical and biological investigations have demonstrated that different proteins may vary widely in both chemical composition (2) and ability to satisfy the nitrogen requirements (1, 3) of various animals. Of the twenty-odd amino acids which have been isolated from proteins (4) arginine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan and valine have been shown to be essential in mammalian nutrition. The biological value of a protein is in reality a measure of its ability to supply those amino acids essential for tissue building and repair which the animal cannot synthesize (5) from material "ordinarily available" at a rate sufficient to meet body demands. A "complete" protein is one which will supply—or at least contains—the essential amino acids. Few proteins approach this ideal condition. Fortunately, however, a varied diet, containing proteins of both vegetable and animal origin, will usually supply all the essential amino acids which may not be supplied in adequate amounts by any one of the proteins.

As to the amounts of protein needed by men, experiments of the balance sheet or endogenous nitrogen elimination types (3, 6) have demonstrated that the protein requirements of the human adult may apparently be adequately met by relatively low protein intakes. These intakes are of the order of 0.5 gram per day per kilogram of body weight. However, there is evidence (3) that development of physique and general health is favored by more liberal protein intake. Since excess of protein above the requirement for tissue repair and growth is utilized as a source of fuel, the present trend is toward more liberal protein allowances.

In infancy and childhood, suggested protein allowances (3) are relatively high, being of the order of 3 to 4 grams of protein per kilogram of body weight in infancy and gradually decreasing with increasing age until adult allowances (3, 6) of 0.75 to 1.5 grams protein per kilogram of body weight are reached. Protein allowances of the order of 10 to 15 per cent of total calories as protein calories in the mixed diet throughout the entire life cycle, appear to be satisfactory. In the formulating of a mixed diet calculated to supply optimal amounts of proteins, the canned meats, marine, dairy and vegetable products may be freely used.

During recent years, popular interest has been concerned chiefly with the more recently discovered essential food factors such as the vitamins. However, the modern concept of adequate nutrition teaches that the optimum diet should be complete with respect to all known dietary essentials, protein, of course, included. In the attainment of this objective, the hundreds of commercially canned foods of animal and vegetable origin should prove both economical and valuable as protein sources.

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(1) 1935. Nutrition Abstracts and Reviews, 4, 447
(2) 1929. The Biochemistry of the Amino Acids, H. H. Mitchell and T. S. Hamilton, Chemical Catalog Company, New York.
(3) 1937. Nutrition Abstracts and Reviews, 7, 257.
(4) 1937. J. Am. Med. Assn. 109, 2070.
(5) 1938. Annual Review Biochemistry, 7, 356.
(6) 1938. Chemistry of Food and Nutrition, Fifth Edition, H. C. Sherman, Macmillan Co., New York.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-ninth in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



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small inducement for most debtors to part with their money. **The proper collection letters should be written with an evident consideration for the patient's point of view, and the appeal should be made to his fairness and sense of his own responsibility in the case.**

Regardless of your irritation at the patient's attitude, your own feelings must not find expression in your letters—at least not while you are hopeful of persuading the debtor to pay under friendly conditions. Keep your debtor on the defensive by your own evidence of cooperation and helpfulness in the matter of the unpaid account. Only a small percentage of debtors will fail to "crack" under the boring pressure of a well directed letter campaign. This does not mean that they will all pay. An honest response may reveal conditions which deserve further consideration. Misunderstandings or dissatisfaction may be revealed which lend themselves to amicable agreement. The object of the collection follow-up is to induce action, either by payment or a report as to why payment cannot or will not be made. **Rarely is an account hopeless so long as the debtor maintains periodic contact with the physician's office.** After a consistent and systematic approach, from plain statements to a climax at the end of a letter campaign, and still no response, the delinquency then demands the sterner handling by third party efforts. You may be reasonably sure the debtor belongs in class four and he should be dealt with accordingly. It is time to call in a collection agency.

USE A PERSONAL STYLE

It is not possible in this article to reproduce the type of letters which have developed satisfactory results for several years in our service directing the collection follow-up in many professional offices. The letters used represent the study and collective experience of several individuals engaged in professional management service in various cities. Your own individual efforts at letter writing may produce results equally good—or better. The personal touch of the physician himself, his own language and style, are recommended. His own signature, or that of the secretary if written in her name, are absolutely essential. Rubber stamp or typed signatures should be avoided. There is no one series of letters that represents a true standard for letter writing efficiency in following professional accounts. However, to any who are interested, a set of specimen collection letters will be forwarded, upon request to the writer. They may contain suggestions which can be incorporated in the physician's own personal letter appeal.

VALUE OF NOTES DOUBTFUL

Note settlement of accounts is not to be encouraged. If accepted, the note should be of the cognovit, or judgment type. Notes of this variety do offer protection if the maker is collectible and legal action becomes necessary. Certain conditions may justify the note settlement, as for instance, where domestic complications exist or where a third party guarantees payment. Actually, however, it has been our experience that a note given in settlement of an account merely postpones payment. A note for six months or a year precludes any payment during the interim and usually the note is not taken up at maturity. The physician is then in the same position he was before, except that the account may be a year older. He can, of course, take judgment on the note, but this is seldom done. The situation is different where established facilities are available for a dignified, ethical financing service that can be approved by the profession. Budget note plans in some of the larger centers, possibly operated by the local Medical Bureau, as is the case here in Columbus, provide practical means of liquidating the larger medical and hospital bills, under arrangements that are distinctly advantageous to both the patient and the physician. Note transactions of the usual type may have their place, but they do not constitute a very effective means of disposing of delinquent accounts in many cases.

Every physician accumulates accounts that defy collection efforts of whatever variety. The collection procedure should be designed to separate the worthy patient from the willful delinquent of class four. A systematic follow-up will usually induce payment by those who can and should pay, it will establish the meritorious cases needing further cooperation, and it will spot the "dead-beats" who should be dealt with by stronger methods. A good collection service is needed for the latter.

Our next article will be on the subject, "Choosing a Collection Agency".

Coming Meetings

American Congress of Obstetrics and Gynecology, Cleveland, Sept. 11-15.

American Congress of Physical Therapy, New York, Sept. 5-8.

American Association for Thoracic Surgery, Los Angeles, July 5-7.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 8-13.

Another Reason Against State Medicine

Government officials are essentially reasonable people but, as Bernard Shaw has pointed out, all progress depends upon unreasonable people. Nothing is done without stirring up trouble, and the chief object of a Government servant is to avoid stirring up trouble. The absence of progress is stagnation.—Dr. Frank Gray; Proceedings, Royal Soc. of Med., 1939; 32.732.

How are Infants Weaned Safely to *Artificial Feeding?*

INFANT FEEDING PRACTICE POINTERS

Answers to Physicians' Questions

1. **Q.** What is the first formula for weaning?

   A. *Milk, whole, 6 ozs. Boiled water, 2 ozs. Karo Syrup, 2 teaspoons for each bottle.*

2. **Q.** How is weaning done gradually?

   A. *One bottle replaces a nursing at 6:00 P. M. the first week; two bottles at 2:00 and 6:00 P.M. the second week; three bottles at 10:00 A.M., 2:00 and 6:00 P.M. for the third week, etc.*

3. **Q.** What is the total formula for twenty-four hours for weaning?

   A. *Milk, whole, 24 ozs.*
   Boiled water, 8 ozs.
   Karo Syrup, 3 tablespoons.
   Four feedings, eight ozs. every four hours.



Infants should be weaned from the breast at about eight months. The season of the year is immaterial with modern knowledge of nutrition and hygiene. Gradual weaning is accomplished by progressively increasing the number of bottle feedings in substitution for the breast feedings.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

A meeting of the Adams County Medical Society was held at the Hotel Manchester, Wednesday, June 21. Dr. S. J. Ellison, West Union, gave his report as legislative committeeman at the business meeting which opened the morning session. The scientific program began with a talk on "Diarrhea in Infants," by Dr. A. R. Carrigan, Manchester, discussed by Dr. J. M. Brooke, Peebles. Following motion pictures, members of the society were dinner guests of their Manchester colleagues. At the afternoon session, Dr. Ralph W. Good, Cincinnati, spoke on "Indication for Splenectomy". Dr. R. C. Wenrick, Winchester, was the discussant. Dr. W. B. Roads, Hillsboro, gave an address on "The Country Doctor in 1939," which was discussed by Dr. W. L. Faul, Sr., Russellville.—O. T. Sproull, M.D., secretary.

BUTLER

Twenty-one members attended a meeting of the Butler County Medical Society at Fort Hamilton Hospital, Hamilton, Thursday evening, May 25. Dr. Clyde E. Shinkle, Cincinnati, gave an interesting talk on dementia praecox, entitled "John Smith, D.P."—Vera C. Iber, M.D., secretary.

CLINTON

Dr. Bryan Michener, medical missionary in British East Africa was the speaker at a meeting of the Clinton County Medical Society, Tuesday noon, June 6, at the General Denver Hotel, Wilmington.—News clipping.

WARREN

"Diabetes Mellitus" was the subject discussed by Dr. Orville L. Layman, Franklin, at a meeting of the Warren County Medical Society, Tuesday afternoon, June 6, at the Town Hall, Lebanon.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

Dr. L. E. Seyler, Dayton, gave an instructive lecture on "Treatment of Acute Allergic Diseases" at a meeting of the Greene County Medical Society, Thursday, June 1, at Xenia. The society adopted a vote of thanks to Senator O. S. Nelson and Representative W. R. McChesney for their cooperation during the recent session of the State Legislature.—Donald F. Kyle, M.D., secretary.

MONTGOMERY

The annual dinner meeting of the Montgomery County Medical Society was held at the Dayton Country Club, Friday, June 2. Harold J. Grimm, professor of history, Ohio State University, Columbus, spoke on "Revitalizing Democracy".—Mildred E. Jeffrey, executive secretary.

PREBLE

Dr. A. E. Zimmermann, Dayton, demonstrated the use of forceps in obstetrical cases at a meeting of the Preble County Medical Society, Thursday, May 25, in the Court House Auditorium, Eaton.—News clipping.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

ALLEN

At the Annual Meeting of the Academy of Medicine of Lima and Allen County, Thursday, May 18, at the Lima District Tuberculosis Hospital, Dr. J. N. Christiansen, Cincinnati, spoke on "The Use of Collapse Therapy in the Treatment of Pulmonary Tuberculosis."—News clipping.

AUGLAIZE

"Some Newer Methods of Treatment" was the subject presented by Dr. C. L. McKibben, Toledo, at a meeting of the Auglaize County Medical Society, Thursday evening, June 8, in the commissioner's room of the Court House in Wapakoneta. Dr. Hugh Foster, Toledo, spoke on "What the Family Physician Can Do To Protect the Child from the Usual Contagious Diseases". Reports were given on the high lights of the recent meeting of the State Association in Toledo, which was attended by 10 of the 26 members of the society.—Chas. C. Berlin, M.D., secretary.

SENECA

Dr. Wade W. Stone, Toledo, spoke on "The Causes of Failure in Gall Bladder Surgery" at a meeting of the Seneca County Medical Society, Wednesday evening, June 14, at the Hayes Hotel, Fostoria. During the afternoon a golf tournament was held at the Fostoria Country Club.—Edmund F. Ley, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

LUCAS

"Medical Economics" was the subject discussed by Dr. Ralph H. Pino, president-elect of the Wayne County Medical Society, Detroit, at a meeting of The Toledo Academy of Medicine, Friday evening, June 2 at Toledo. Dr. Pino explained various group medical service plans and commented on the Wagner National Health Bill. He was accompanied by Dr. R. Lee Laird, De-

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troit, and Dr. R. E. Holmes, Windsor, Ontario, who participated in the discussion.—George W. Cooley, executive secretary.

SANDUSKY

Dr. Walter H. Hartung, Toledo, former State Director of Health, was the speaker at a meeting of the Sandusky County Medical Society, Thursday evening, May 25, at Oak Ridge Sanatorium, Green Springs.—News clipping.

WOOD

"Long Tube Drainage in the Treatment of Intestinal Obstruction" was the subject of an address made by Dr. Charles G. Johnson, professor of surgery, Wayne University College of Medicine, Detroit, at a meeting of the Wood County Medical Society, Thursday, June 15, at the Woman's Club, Bowling Green. His talk was supplemented with a motion picture demonstration.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The following new officers were elected by directors of the Cleveland Academy of Medicine at their annual meeting, May 26: Dr. Russell L. Haden, president; Dr. F. T. Gallagher, vice-president; and Dr. E. F. Kieger, secretary-treasurer. New directors elected by the Academy for a three-year term are: Dr. E. H. Cushing, Dr. Roscoe D. Leas, Dr. C. S. Stone, Dr. Harley A. Williams and Dr. Haden. Retiring directors were: Dr. Harold Feil, Dr. S. O. Freedlander, Dr. Paul G. Moore and Dr. J. L. Reycraft.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

The annual interns' contest of the Mahoning County Medical Society was held at the Youngstown Club, Tuesday evening, May 16. Contestants were Dr. A. K. Phillips and Dr. A. S. Parker of St. Elizabeth's Hospital, and Dr. A. L. Williamson and Dr. M. S. Owen of the Youngstown Hospital. Their case reports were: Dr. Phillips, bilateral pneumothorax; Dr. Parker, acromegaly; Dr. Pwen, paroxysmal hemoglobinuria; and Dr. A. L. Williamson, anterior coronary infarction. The presentations were judged by four standards, namely, interest of the case, careful workup with complete background, manner of delivery, and good English. After considerable discussion, the first prize of $15 was awarded to Dr. Phillips and the $10 second prize to Dr. Parker. The judges were Dr. C. R. Clark, Dr. R. E. Whelan and George Madtes of the *Youngstown Vindicator*.

Dr. August A. Werner, assistant professor of medicine of the St. Louis University Medical School, spoke on "The Influence of the Ductless Glands on Growth and Development," at the June 20 meeting of the society.—Bulletin.

PORTAGE

A meeting of the Portage County Medical Society was held at the office of Dr. E. M. Kauffman, Kent, Thursday, June 1. Matters of organization and scientific interest were discussed.—E. J. Widdecombe, M.D., secretary.

SUMMIT

Dr. J. G. Blower spoke on "The Acute Abdomen" at a meeting of the Summit County Medical Society, Tuesday evening, June 6, at the Mayflower Hotel, Akron.—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

TUSCARAWAS

Tuscarawas County Medical Society honored Dr. K. Earl Shaweker, Dover, who is retiring after 25 years of active practice, at an outing Wednesday afternoon and evening, June 7.—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

FAIRFIELD

Dr. Jonathan Forman, Columbus, explained the Wagner National Health Bill at a meeting of the Fairfield County Medical Society, June 13, at Lancaster.

PERRY

"Trichiniasis" was the subject discussed by Dr. J. H. Clouse, Somerset, at a meeting of the Perry County Medical Society, Thursday noon, May 18, at the Park Hotel, New Lexington.—News clipping.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

Three Dayton physicians were the speakers at a meeting of The Hempstead Academy of Medicine of Scioto County, Monday evening, June 5, at Portsmouth General Hospital. They were: Dr. R. C. Austin, "The Breast"; Dr. E. L. Braunlin, "Radical Breast Removal"; and Dr. R. S. Binkley, "Solution of the Indigent Relief Situation in Dayton by the Montgomery County Medical Society Plan".—Wm. M. Singleton, M.D., secretary.

Tenth District

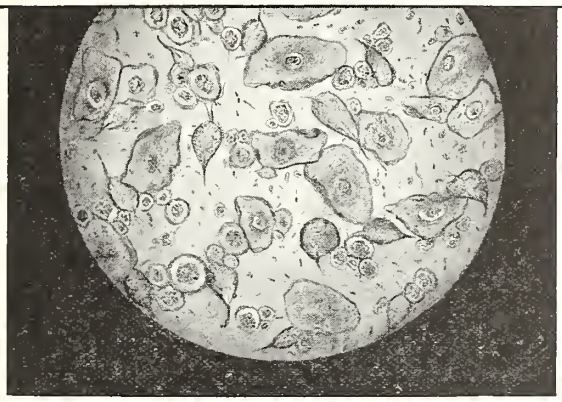
(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FRANKLIN

The following papers were presented at a meeting of the Columbus Academy of Medicine, June 5, at Children's Hospital, Columbus: "Sulfapy-

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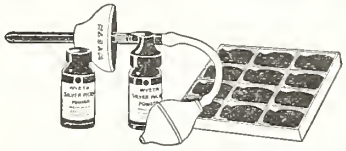


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drine in Children," Dr. J. E. Brown, Jr.; "Bone Diseases in Children," Dr. Huston F. Fulton; "Analysis of a Series of Cases of Mastoidectomy in Children," Dr. H. D. Emswiler; "Endocrine Disturbances," Dr. R. A. Ramsey; "Intussusception in Children," Dr. Gilman D. Kirk;" Treatment of Paralytic Scoliosis," Dr. Henry B. Lacey; "Organic Heart Disease," Dr. Ruth Koons and Dr. E. von Haam; "Hypoglycemia in Infants and Children," Dr. Earl H. Baxter.—Bulletin.

ROSS

Dr. Clifford J. Straehley, Cincinnati, spoke on "Heart Diseases" at a meeting of the Ross County Academy of Medicine, Thursday, May 4, at the Warner Hotel, Chillicothe.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ERIE

Dr. Gerald S. Shibley, Cleveland, spoke on "Modern Treatment of Pneumonia" at a meeting of the Erie County Medical Society, Wednesday evening, May 24, at the Hotel Rieger, Sandusky. —News clipping.

HURON

Dr. Henry P. Worstell, Columbus, assistant supervisor of the Medical Section, State Industrial Commission, discussed "Medical-Legal Problems of Injury" at a meeting of the Huron County Medical Society, Wednesday, June 7, at Norwalk.

LORAIN

An address on "Diagnostic Problems in Coronary Heart Disease and Coronary Occlusion," was made by Dr. Hubert C. King, Cleveland, at a meeting of the Lorain County Medical Society, Tuesday evening, June 13, at the Elks' Restaurant, Elyria.—L. H. Trufant, M.D., secretary.

RICHLAND

Members of the Richland County Medical Society entertained their wives with a dinner-bridge party, Wednesday evening, May 24, at the Westbrook Country Club, Mansfield.—News clipping.

Opinions of Attorney General Herbert Relating to Medical Practice and Public Health

Recent opinions of Attorney-General Thomas J. Herbert include four of general interest to the medical profession: The syllabus of each follows:

Opinion No. 707, June 5.

1. A local district board of education may, in its discretion, establish and maintain special classes for undernourished children within the schools under its jurisdiction.

2. A board of education in a city school district may establish and maintain special elementary schools for resident school pupils of compulsory school age who are afflicted with tuberculosis, and furnish transportation for such pupils to the schools so established. Where such schools are established and maintained resident elementary school children afflicted with tuberculosis may be excluded from the other schools of the district.

3. Power is not extended by law to boards of education to expend public school funds under their control for food to be furnished free of charge to undernourished children in attendance in the schools of their districts or to expend such funds for the furnishing of food or clothing such as sleeping garments and the like, or for cooking meals or laundering clothing for pupils in attendance in special schools provided for children by authority of Section 7644-1, General Code.

Opinion 713, June 5.

1. Where a sheriff, in the investigation of a highway accident, calls an ambulance for the removal of injured persons to a hospital, it is not proper for county commissioners to authorize the payment of such bills for ambulance service.

2. The sheriff may not properly include such bills for ambulance service in his expense account for collection from the county.

Opinion No. 727, June 9.

1. Upon the death of an indigent person and where there has been no physician in attendance,

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OBSTETRICS—Two Weeks Intensive Course October 23rd. Informal Course every week.
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the death certificate is signed by the local health officer; if this officer can not act, the registrar shall make the certificate, and a physician's certificate is not required.

2. An autopsy is authorized only in case of death occurring in an unlawful or suspicious manner and upon request of the prosecuting attorney of the county in which the body is found. The coroner is not entitled to fees for performing an autopsy unless the autopsy is so authorized.

3. The coroner is not required to sign the death certificate where death is not supposed to have been caused by unlawful or suspicious means.

Opinion No. 729, June 9.

Where a board of education of a local school district delegates to the board of health of a general health district of which it is a part, the powers and duties conferred upon said board of education with respect to the employment of physicians and nurses as provided by Section 7692, of the General Code of Ohio, and the said board of health assumes the same, the said board of education may in its discretion pay compensation to the employes of the board of health in addition to that provided for them by the said board of health but may not lawfully contribute to the board of health a part of the salary of said employes as fixed by the said board of health.

Wins Golf Tournament

Dr. R. C. Young shot a 78 to win the Seventeenth Annual Golf Tournament of the Toledo Academy of Medicine at the Sylvania Country Club, June 8. He succeeds Dr. James I. Collins as champion. Dr. Casimar J. Czarnecki and Dr. Norman B. Muhme, former titleholders, finished in second and third place, with scores of 79 and 82, respectively. Dr. Charles Lukens won the Granddads Trophy with a 98. Over 100 golfers participated in the tournament. The banquet held in the dining room of the Club was attended by approximately 125. Dr. Sam Coulter was general chairman of the tournament.

Veteran Staff Members Feted

Sixteen members of the staff who have served Cleveland City Hospital 20 years or longer recently were honored at a civic luncheon in connection with the observance of National Hospital Day and open house at City Hospital. They are: Dr. Fred Beekel, Dr. A. A. Bill, Dr. Harold N. Cole, Dr. E. P. Edwards, Dr. Otto L. Hoehle, Dr. Louis J. Karnosh, Dr. Howard T. Karsner, Dr. E. P. Monaghan, Dr. J. C. Placak, Dr. L. R. Ravitz, Dr. Roy W. Scott, Dr. Charles W. Stone, Dr. O. T. Thomas, Dr. John A. Toomey, Dr. S. J. Webster and Dr. K. S. West.

West Manchester—Dr. Carle W. Beane will become health commissioner of Preble County January 1, 1940, following the completion of a course in public health at the University of Michigan. He will succeed Dr. J. I. Nisbet, who has resigned after 11 years service, to devote his entire time to private practice.

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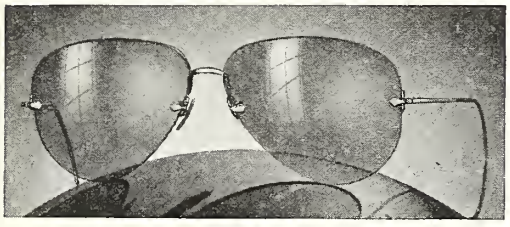
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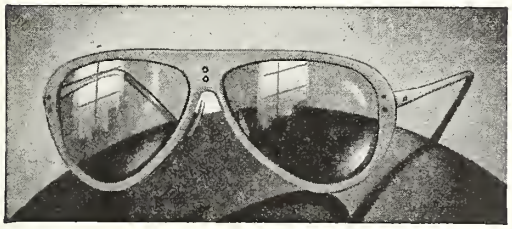
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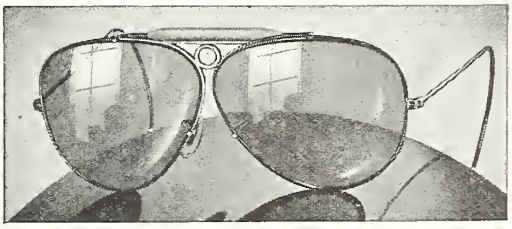
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The Physician's Bookshelf

Menstrual Disorders, Pathology, Diagnosis and Treatment. By C. F. Fluhman, M.D., associate professor of obstetrics and gynecology, Stanford University *(W. B. Saunders Company, Philadelphia,* $5.00), fills a needed place in every physician's library in that the author presents the subject as a whole as we all see it no matter what particular field of medicine we may happen to be in. It exhibits a commendable conservatism and still it offers detailed treatment both in removing causes and relieving symptoms.

Health Officers Manual. By J. G. Geiger, director of public health of San Francisco *(W. B. Saunders Company, Philadelphia),* is an excellent and handy arrangement of the problems of organization and medical services as well as inspection, control services of a public health department. It therefore merits a place in the brief case of every health officer.

Superfluous Hair and Its Removal. By A. F. Niemoeller, M.A. *Harvest House, New York,* $2.00. It is a rather complete text which points out the dangers of the various methods sometimes resorted to. With the trend to reveal more and more of the female anatomy, this question becomes an important one and therefore deserves presentation.

A Girl Grows Up. By Ruth Fedder. *Whittlesey House, McGraw Hill, New York,* $1.75. Is a sympathetic interpretation of the difficulties of adolescent girls have in getting along with other girls, boys, parents, and the world in general. The advice given is sound and has been gained from a wide experience in the field of Y.W.C.A. work.

Trauma and Internal Disease. A basis for medical and legal evaluation of the etiology, pathology, clinical processes following injury. Frank W. Spicer, M.D. *Lippincott, Philadelphia.* $7.00. The book accomplishes its purpose of presenting a careful study of the role of trauma as a causative factor in the production of disease. It should be clear from what has been said that this is in no sense a text-book on traumatic surgery. It is a work that everyone who expects to go on the witness stand in an injury case should read before he goes to court and at other times when he is called upon to render an opinion about the relation of injury to and influence upon disease in the post-traumatic state.

Bengt Ihre—Human Gastric Secretion. Acta Med. Scand. Suppl. 95. Helsingfors—1938. This monograph of 226 pages in English from St. Erik's Hospital in Stockholm is a part of the studies being done there on the gastro-intestinal tract. There is an excellent discussion of the physiology of gastric secretion. The author's method of continuous gastric suction for one hour on fasting and stimulated (histamine and insulin) stomachs can not be subjected to the criticism inherent in isolated aspiration methods. After establishing normal criteria on 24 young and healthy adults; 20 cases of gastroscopically and roentgenographically proved gastric ulcers, 20 cases of roentgenographically proved duodenal ulcers, and 24 cases of chronic gastritis without ulcer were examined. His findings very definitely establish the facts that there is marked hypersecretion in duodenal ulcers and moderate hyposecretion in gastric ulcers, most marked in gastritis. His second and possibly most important conclusion is that **there is no such thing as hyperacidity** (which has been contended by most physiologists for years). He found only four of his 44 cases of stomach disorders and 11 of his duodenal ulcer cases with normal acidity values. All others failed to reach normal values because of increased mucus and increased back diffusion due to changes in the mucous membranes.—Robert C. Kirk, M.D.

Your Experiment in Living. By Michael A. Cassidy, M.D., and Helen Gay Pratt. *Reynal and Hitchcock, Inc., New York,* $1.75. Is not a text book but rather a book which, if indirectly a child in later adolescence can be intrigued into reading, will form a sane basis for discussion between parent and child. The facts of procreation and birth, although presented in a clear forward way, are not emphasized any more than such other important things as personality, choice of a career, relationship to society, and getting

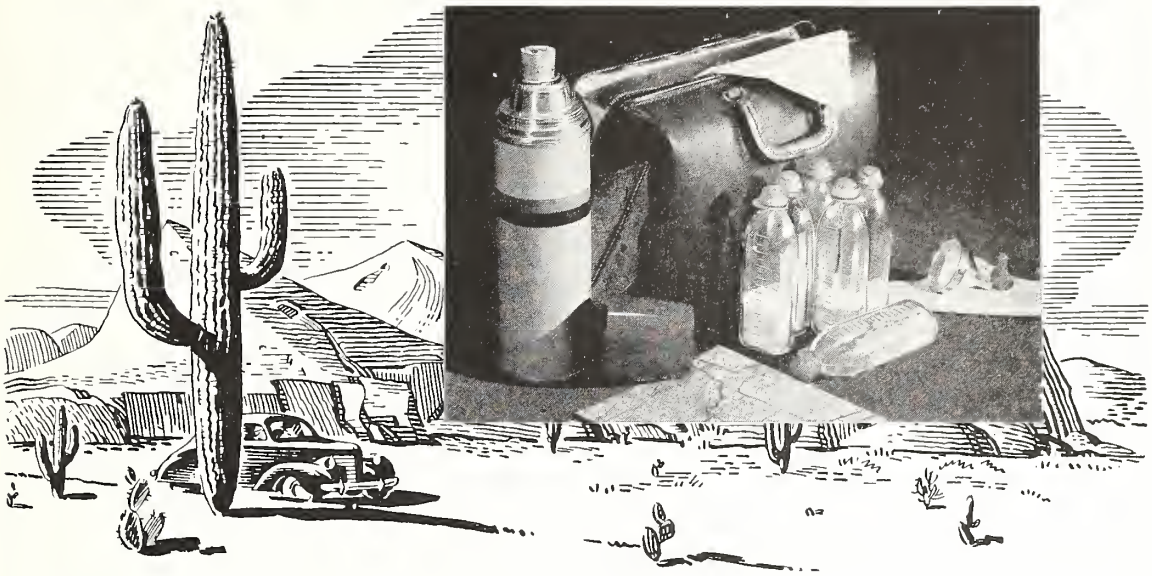
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You and Heredity. By Amran Scheinfeld. *Frederick A. Stokes Co., New York,* $3.50. Is a book written by a trained science newswriter from the outside, but in each step he has been carefully guided by those who know. Consequently, it is a most readable presentation of the facts and a valuable exposition of superstition, both scientific and lay. Your reviewer spent considerable time on the subject when in college some years ago. He was amazed to find how much that he belived from that experience has in the meantime been disproved, and is most grateful to the author for the book.

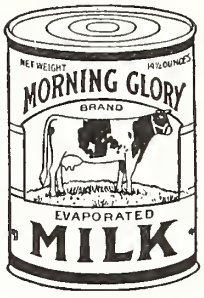
The Complete Guide to Bust Culture. By A. F. Niemoeller, M. A. *Harvest House, New York,* $3.50. Should be a great seller because so many women have, or imagine they have, a bosom problem. Most of the pitfalls and harmful practices are adequately dealt with. Posture and exercise are well presented. Probably the best chapter is the one on brassieres.

Religion From The Bleachers. By Everett S. McClelland, M.D. *Cokesbury Press, Nashville,* $1.50. Gives scientific truth its rightful place in religion. There comes a time in the life of every youth, especially when preparing for medicine, when this book is a real necessity.

Diet and Health with Key to Calories. By Lulu Hunt Peters, M.D., with additions by Eloise Davison. *Reilly and Lee, Chicago,* $1.50. Has been an outstanding contribution. One of the additions is the chapter on alcohol calories. The general revision is quite acceptable.

Treatment in General Practice. By outstanding British authorities. *Little, Brown and Company, Boston,* $7.50. These two valuable volumes contain a series of most practical articles each written by a well-known chemical teacher thoroughly familiar with his subject. The first volume deals with treatment of the acute infections and cardio-vascular disease, and the second with treatment of more chronic conditions such as diseases of the nervous system,

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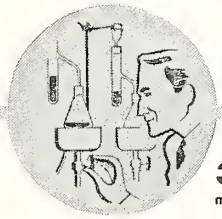
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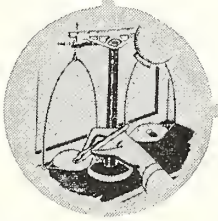
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Why Grow Old? A Modern Guide to Keeping Young in Mind and Body. By Frank S. Caprio, M.D., and Owsley Grant, M.D, *Garden City Publishing Company, New York,* Star Dollar Edition. This excellent guide to men after 40 was reviewed in *The Journal,* January, 1938, in its more expensive dress. Now, we have the popular edition. It should have a still wider circulation.

Elementary Anatomy and Physiology. By James Whillis, M.D. *Lea and Febiger, Philadelphia,* $3.50. Is a successful correlation of structure with function. It is a book for nurses or for the young man who plans upon entering medicine next Fall.

Surgical Treatment of Hand and Forearm Infections. By A. C. J. Brickel, M.D., Western Reserve University. *C. V. Mosby Company, St. Louis,* $7.50. This is a real contribution to the subject and represents a careful study begun under the inspiration of the late T. Wingate Todd in 1922. This volume is a permanent record of the newer relevant facts which the author has unearthed in these studies. It becomes, therefore, a "must" book for all who deal with these infections.

Emotions and Bodily Changes. A Survey of Literature on Phychosomatic Interrelationships. By H. Flanders Dunbar, M.D. *Columbia University Press, New York,* $5.00. Has been revised and supplemented with the additional bibliography bringing the work up to date. No man who poses as a physician can afford not to read the surveys, as we all more and more emphasize the treatment of the patient who has the disease.

The Vaginal Diaphragm. By LeMon Clark, M.D. *C. V. Mosby Company, St. Louis,* $2.00. Is an authoritative discussion of this method of contraception. It is clearly written and well illustrated. In addition it contains much good advice to newlyweds.

My Days of Strength; An American Woman Doctor's Forty Years in China. By Anne Walter Fearn. *Harper and Brothers, New York,* $3.00. Is the autobiography of one whom Carl Crow has characterized as "the best-known and best-loved woman between Suez and the China Coast." In addition to being crammed full of dramatic episodes as one would expect, the book can also be recommended as an insider's story of China. It is therefore a most timely volume.

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Institute on Hematology

Physicians who are interested are cordially invited to attend an Institute for the Consideration of the Blood and Blood-Forming Organs to be conducted by the University of Wisconsin Medical School, September 4-6. The program is to include papers and roundtable discussions by European and American workers in the field of hematology. Speakers include Dr. Russell L. Haden, Cleveland, on "The Nature of the Hemolytic Anemias", and Dr. Charles A. Doan, Columbus, on "The Reticulo-Endothelial System". A detailed program may be obtained by addressing Dr. Ovid O. Meyer, chairman of Program Committee, University of Wisconsin Medical School, Madison, Wisconsin.

New Officers of Nurses' Association

The following officers were elected at the 1939 Annual Meeting of the Ohio State Nurses' Association held in Cleveland recently: Celia Cranz, City Hospital, Akron, president; Cora M. Templeton, City Hall, Cleveland, first vice-president; Sue Z. McCracken, Lakewood, second vice-president; Huldah M. Wyland, Robinwood Hospital, Toledo, secretary, and Mrs. Helen S. Haughton, Columbus, treasurer. Trustees are: Mrs. Nan H. Ewing, Toledo Hospital, Toledo; Catherine Buckley, General Hospital, Cincinnati; Mrs. Esther Brubaker, Springfield, and Gladys Hardin, Lima. Mrs. Elizabeth P. August, Columbus, is executive secretary.

Recent Benedicts

Recent marriages of Ohio physicians include the following: Miss Evelyn Mary Ball, Huntington, W. Va., and Dr. John R. McKay, Warren; Miss Caroline Elizabeth Graetz, Cincinnati, and Dr. Herbert F. Kesinger, Wellston; Miss Alma Jones, Des Moines, Iowa, and Dr. Maurice E. Scheetz, LaFayette; Miss Jane Nettleton Amsden, Ashtabula, and Dr. Richard S. Knowlton, Cleveland; Miss Bess Malkoff and Dr. Chester S. Lowendorf, Youngstown; Miss Helen Louise Hartwell and Dr. Albert J. Fisher, Youngstown; Dr. K. Ruth Merrell, Massillon, and Dr. Angelo Lapi, Canton.

Address Insurance Meeting

Speakers at the 29th annual meeting of the Medical Section of the American Life Convention held at the Homestead, Hot Springs, Va., June 27-29, included Dr. A. R. Stone, medical director, The Midland Mutual Life Insurance Company, Columbus, and Dr. H. H. Shook, medical director, Ohio National Life Insurance Company, Cincinnati.

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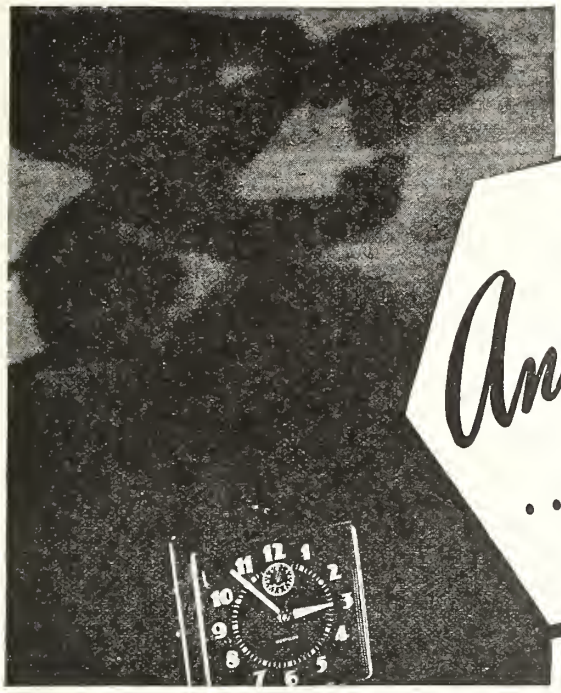
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News Notes

Bucyrus—Dr. D. D. Bibler is the new president of the Lions Club.

Chillicothe—Dr. Loy E. Hoyt discussed "Socialized Medicine" at a recent meeting of a study group of the Ross County Farm Bureau.

Columbiana—Members of the local Kiwanis Club submitted to blood typing tests and heard a talk on "Blood Transfusions" by Dr. C. W. Dewalt at a recent meeting.

Columbus—Dr. Maurice B. Rusoff of the Medical Staff of the State Industrial Commission recently visited clinics at New York Polyclinic, Mt. Sinai and Presbyterian Hospitals, studying peripheral vascular diseases and cardiology.

Cuyahoga Falls—Dr. W. J. Urben, former member of the staff of Massillon State Hospital is the medical director of Fair Oaks Villa.

Coshocton—Construction of a $45,000 addition to City Hospital for the treatment of crippled children has been assured by a recent P.W.A. grant, supplementing funds bequeathed by the late Ernest A. Bachert for that purpose.

Farmersville—Dr. Charles W. Holtzmuller has been practicing medicine here for 40 years.

Gallipolis—Dr. G. G. Kineon, superintendent of the Ohio Hospital for Epileptics was the speaker at a recent meeting of the Jackson Rotary Club.

Mansfield—Laboratory methods were explained by Dr. Burr Hathaway at a recent meeting of the Rotary Club.

Mt. Vernon—The new addition to Mercy Hospital was dedicated by Rt. Rev. James Joseph Hartley, bishop of the Columbus Diocese, May 12.

Napoleon—Dr. J. R. Bolles, has resigned as health commissioner of Henry County. His successor is Dr. Lloyd E. Overhulse, Holgate.

Medina—Dr. Irvin B. Kievit, health commissioner of Medina County, resigned recently.

Piqua—Dr. George A. Woodhouse, Pleasant Hill, secretary of the Miami County Medical Society, discussed "Socialized Medicine" at a recent meeting of the Rotary Club.

Steubenville—Dr. A. Jacoby spoke on "The Human Eye" at a recent meeting of the Y's Men's Club.

Upper Sandusky—Dr. J. H. J. Upham, Columbus, Dean of Ohio State University College of Medicine, spoke on "Medicine in a Changing Social Order" at a joint dinner meeting of the Wyandot County Medical Society, Upper Sandusky Chamber of Commerce, Carey and Upper Sandusky Kiwanis Clubs and the Upper Sandusky Lions Club in the Union School Auditorium recently.

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Vol. 35 AUGUST, 1939 No. 8

JONATHAN FORMAN, M.D., *Editor*

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GEORGE H. SAVILLE, *News Editor*

Hematuria and Its Significance Following Automobile Accidents

Modern Means of Diagnosis and Treatment

LEO P. DOLAN, M.D.

THE enormous increase in automobile accidents accompanying this high speed era of recent years has shown a marked tendency to increase the incident of critical injuries among the victims of these accidents. Trauma referable to the urinary tract has increased accordingly.

Physicians everywhere, especially here in Ohio where the number of motor car registrations is very high, are seeing an increasing number of cases of hematuria following automobile accidents.

There are definite fundamental factors to be considered in reaching an evaluation of the degree of injury, thus indicating the immediate treatment and procedure to be carried out. Some of these factors can best be approached through comparatively new methods of diagnosis.

The same fundamental principles that are to be considered here in the diagnosis of trauma to the urinary tract due to automobile accidents, can naturally be applied to any form of injury to these parts.

To return to the subject of automobile accidents, it has been noted that the chief cause in producing hematuria is a crushing blow to the pelvic girdle producing subsequent injury to the bladder or urethra and in most cases causing a rupture of the same. The next in frequency is a blow to the lumbar region producing an injury to either or both kidneys.

Read before the Section on Surgery, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

The Author

● Dr. Dolan, Toledo, Ohio, is a graduate of St. Louis University School of Medicine, 1923; fellow American College of Surgeons, diplomate American Board of Urology; member American Urological Association; director department of urology, St. Vincent's Hospital; urologist to Mercy Hospital; member urological staff of Lucas County Hospital, Toledo, Ohio.

To arrive at the points we desire to make, let us consider a case of injury, resulting from an automobile accident, that is brought into the hospital. The patient, let us say, is in shock and all supportive means of the treatment of shock have been carried out; what might now be the best procedure to follow? We will assume that there is no visible, external evidence of trauma, and the patient has no palpable masses in the abdomen. It is now several hours after the accident and the patient voids the first specimen of bloody urine. What procedure may we use, at this time, to evaluate the degree of trauma to the genito-urinary tract? Remember, this is the time when precautionary measures should be taken.

We must assume that we are dealing with a sterile urinary tract; therefore, if we pass a catheter or a cystoscope through the urethra we

might introduce organisms from the external urethral orifice or from the urethra itself. These organisms would be carried into an otherwise sterile bladder that has just been ruptured intraperitoneally and thus might subsequently produce a virulent peritonitis.

As an alternative to this procedure, let us consider the same case after the first voiding of bloody urine. If, for instance, the amount of bloody urine obtained is about six or eight ounces, it would be feasible to suppose that there has not been a complete rupture of the bladder, but rather an hemorrhagic trauma thereto; or, probably an upper urinary tract injury. The latter being the case, we would still be hesitant about immediately inserting an ureteral catheter through a cystoscope for the same reason as previously mentioned; namely, the possible introduction of infection to a traumatized, and possible non-surgical kidney.

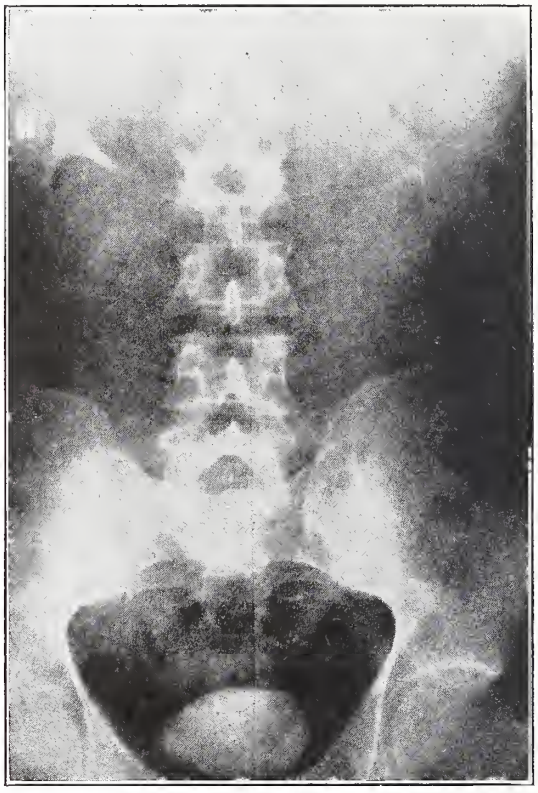
Therefore, the most conservative thing to do at first would be an intravenous excretory urogram. One could, in most cases, probably locate the lesion as being in one or both kidneys or just as readily locate it in the bladder.

CASE REPORTS

Case 1—The first illustration shows a definite trauma to the left kidney and a possible trauma to the right kidney by means of an excretory urogram. This case represents an example of conservative treatment. The patient was admitted to the hospital after an accident in which he sustained a fractured skull and a fracture of the left humerus. He was in profound shock, and involuntarily voided approximately eight ounces of burgundy colored urine produced by the presence of blood. Because of his various injuries and the shock, we decided to do nothing in regard to the genito-urinary tract as long as he had voided such a good quantity of urine, even though bloody. We reasoned that the large quantity of urine voided gave some evidence that the bladder was intact. Reasoning from past experience with ruptured kidneys, where we have seen a complete rupture go as long as two weeks before operation, we decided against any immediate operative or instrumental procedure in this case. Twelve hours later the patient was conscious and voided voluntarily the same type of burgundy colored urine as previously. At the end of 24 hours, we did our first intravenous excretory urogram which gave us this picture. The patient was now conscious and complaining of pain in the left lumbar region. So, putting several factors together, namely: the voiding of a large quantity of urine indicating an intact bladder; complaint of pain in the left lumbar region; visualization of this urogram with a distorted pelvis and the presence of hematuria: we reasoned that he had a rupture of the left kidney—parts of which must be intact to deliver bloody urine to the bladder. Ordinarily, one would now consider operative or instrumental procedure; but we find suggestions of irregularity in the right kidney. Therefore, we elected to give a blood transfusion and continue observations as long as the patient's general condition so warranted. After two transfusions of 500 cc. of blood within 36 hours, the voided urine became slightly less colored. Conservative methods were then further rewarded by the urine becoming free of any fresh blood within one week. There had never been any discoloration of the skin about the abdomen or back.

At the end of eight weeks, the patient left the hospital with clear urine, free of organisms or pus. This patient has never had a catheter or any other instrument in his urinary tract, and today, his urinary tract is normal appearing to all examinations.

I believe it is reasonable to assume that if immediate operative procedure had been carried out, this patient might not have survived; and,



Case 1. Intravenous excretory urogram showing definite rupture of the left kidney pelvis and questionable trauma to right kidney. Bladder is intact.

if he had I believe we would have infected his traumatized kidneys by passing catheters into the ureters.

Case 2—In this case we see that the patient has a fracture of both rami of the pubes. (Figure 2). She was conscious and not in severe shock. She had not voided six hours after the accident nor was there any desire to do so. Tenderness was present, however, over the entire lower abdomen. An intravenous excretory urogram was done and as you will see there is no concentration of the contrast medium in the usual circumscribed area of the bladder, but the diffuse infiltration of the medium is seen throughout the lower abdomen. This was not present in a film made 20 minutes prior to the intravenous injection of this medium. The upper urinary tract appeared normally filled. The diagnosis of a ruptured bladder was therefore made and suprapubic cystotomy was then done. A double rent in the dome of the bladder was found and repaired through a peritoneal opening. The peri-

toneal cavity was evacuated of fluid and the peritoneum closed without drainage. This was considered possible because the patient had not been catheterized and no possible foreign infection introduced. The cystotomy wound was then closed solidly with only a small prevesical drain left in place. A Pezzar catheter was inserted through the urethra for constant drainage of the bladder. The patient made an uneventful and rapid recovery without abdominal drainage interfering with the orthopedist's work.

CONCLUSION

In presenting these two types of cases I desire to show how readily possible it is to diagnose a rupture of a definite portion of the urinary tract without introducing foreign infection into the tract by means of instrumentation. As for the immediate procedure following diagnosis, or



Case 2. Intravenous excretory urogram showing a diffusion of the contrast medium throughout the pelvis and lower abdomen; also fracture of both rami of the pubes on the left side.

the lack of definite diagnosis by means of excretory urography, every case becomes its own problem and the basic principles indicating cystoscopy or ureteral catheterization must then be determined and followed.

It has not been the intent of this paper to review the classic findings or symptoms of traumatic hematuria, nor the meaning of the absence of any one of these signs. Neither was it intended to consider other abdominal complications. It is intended only to point out the conservative method of diagnosis that is often possible, so that complications more serious than the urinary tract injury may be approached with less insult to the patient.

In order to put these more conservative methods into practice, which was not possible before the introduction of excretory urography in the last decade, it is necessary to establish rules for the hospital admitting rooms. These rules should stress the importance of not catheterizing emergency cases by any attendant, nurse or intern until the attending physician has been notified of all existing circumstances.

1052 Edison Bldg.

Rabies in Indiana

During the twelve and one-half year period from 1926 to June, 1938, inclusive, Negri bodies were found in 6,172 of 11,478 animal heads examined in the Indiana State Board of Health Laboratory, and 7,659 patients received free "Pasteur" treatment.

During the same period 40 human deaths were reported as resulting from rabies. Necropsy was done in 16 of these cases and Negri bodies were demonstrated in 14 of them. Infection most frequently followed the bite of a dog but, in three cases, the history indicates that infection came from dogs without bites being sustained by the victims. One death is reported following the sole exposure of drinking milk from a rabid cow; this is discounted.

In the series of 38 cases wounded, 39.5 percent received local treatment. Some of these were apparently self treated and only 5.26 percent received the recommended treatment with nitric acid.

Of the entire series of 40 cases only 27.5 percent received "Pasteur" treatment.

The shortest observed incubation period in a proved case was 18 days. The significance of shorter incubation periods in some of the unproved cases is discussed.

In the untreated proved cases with the wound above the clavicle the average incubation period was 22.5 days as compared with an average of 39.7 days when the wound was below the clavicle.

The average duration of the disease was 4.66 days with no significant difference between the treated and untreated cases.

The number of positive animal heads examined has been decreasing since 1935; the significance of this is discussed briefly but inconclusively.—A. W. Ratcliffe, M.D., Hammond; Ind. State Med Jour., Vol. 32, No. 7, July, 1939.

A traumatic rupture of a solitary kidney was treated successfully without operation. Later studies revealed that it was the only kidney.—Augustus Harris, Brooklyn.

Hyperthyroidism

The Relationship of the Age of the Patient to the Manifestations of the Disease

GEORGE CRILE, JR., M.D.

THE most logical, the most practical, and the simplest classification of goiter is that adopted by the American Association for the Study of Goiter. In this classification the common types of goiter are divided into:

1. Diffuse goiter
   - With hyperthyroidism
   - Without hyperthyroidism
2. Nodular goiter
   - With hyperthyroidism
   - Without hyperthyroidism

This classification is valuable in that it is based on clinical criteria, i.e., the presence or absence of adenomata in the thyroid and the presence or absence of hyperthyroidism. Its limitations lie in the fact that in a high percentage of cases (20 per cent in this series of 200 cases) the clinician was mistaken in his preoperative opinion as to whether or not adenomas were present in the thyroid. Furthermore, we have reason to believe that although the disease, hyperthyroidism, is essentially the same whether associated with nodular or with diffuse goiter there may be etiological differences in the two conditions. If this is the case the division of hyperthyroidism according to its etiology into (1) "primary" and (2) "secondary" varieties, is not without merit.

In the primary variety the hyperthyroidism and the goiter appear at the same time, whereas in the secondary variety the goiter (initiated as a rule by an iodine deficiency) has been present for some time and the hyperthyroidism develops later. In the former type a constitutional disturbance resulting in hypertrophy, hyperplasia, and overactivity of the entire thyroid is implied and the resulting disease is known as exophthalmic goiter or Grave's disease. In the secondary variety the hyperthyroidism is taken to be the result of an increased functional activity occurring in one or more adenomata, and presumably the removal of these adenomata without disturbing the remainder of the gland will result in a clinical cure. This condition is widely recognized under the name of toxic adenoma.

Unfortunately, however, few patients are under medical observation at the time of the onset of their symptoms and an accurate history of whether the development of the goiter preceded or coincided with the development of the hyperthyroidism is difficult to obtain. Moreover, large adenomas may in the course of time develop in glands whose initial hyperplasia was the result of Grave's disease. Conversely, a symmetrical adenomatosis of the thyroid, resulting from iodine deficiency experienced in areas of endemic goiter, may closely simulate a diffusely hyperplastic gland. Hence from the standpoint of the history and of the physical findings and even from the standpoint of the histological findings it may be impossible to distinguish between the so-called primary and secondary types of hyperthyroidism.

Since (1) before operation it is impossible to differentiate with any degree of accuracy between adenomatous and diffuse enlargements of the thyroid gland, (2) since there is little if any clinical difference in the fundamental nature of the hyperthyroidism associated with diffuse or with nodular goiters or in the response of this hyperthyroidism to iodine, and (3) since the minor differences occurring in the clinical findings and course of the disease in these two conditions can to a large extent be explained on the basis of the differences in the age of the patients affected—in view of these three considerations it would seem to be of little clinical consequence how the cases are classified. The fundamental issue in a patient with hyperthyroidism is his age and his reaction to the disease rather than the presence or absence of adenomata in the thyroid.

RELATIONSHIP BETWEEN THE TYPE OF GOITER AND THE AGE OF THE PATIENT

In confirmation of the above hypothesis I have analyzed a group of 200 cases of hyperthyroidism, dividing them into eight age groups, the youngest group consisting of children under 14 years of age and the oldest consisting of patients over 70 years of age.

In this series of patients with hyperthyroidism

Submitted April 6, 1939.

The Author

● Dr. Crile, Jr., Cleveland, Ohio, is a graduate of Harvard University Medical School, 1933; member of staff, Division of Surgery, Crile Clinic, Cleveland.

the average age of those with adenomatous goiters was 48 years as compared to 35 years for patients with diffuse goiter. The importance of this age relationship is further emphasized by the fact that in 25 children under 14 years of age, although hyperthyroidism was present, no adenomas were found, whereas in 25 patients over 70 years of age adenomas coexisted with the hyperthyroidism in every case. **In short, there is a progressive increase in the incidence of adenomatous goiters starting at 0 in the youngest age group and reaching 100 per cent in the oldest group** (Chart 1).

In patients over 70 years of age hyperthyroidism is rare and when it does exist it is usually of the so-called secondary variety—an adenomatous goiter having been present for many years with recent development of symptoms of hyperthyroidism. "Primary" hyperthyroidism, although more rare (12 per cent in this series), may occur even in patients over 70 years of age, and occasionally may even reproduce the syndrome of exophthalmic goiter as seen in the young adult (Fig. 1). In these cases, however, there is adenomatous change in addition to the finding of a diffuse hyperplasia of the entire thyroid. This type of adenomatous change was never seen in the children with hyperthyroidism.

It is interesting to note that the autopsy statistics of Wegelin[1] prepared from his findings in a region of endemic goiter (Switzerland) and dealing with patients who had no hyperthyroidism show the same transition from diffuse to

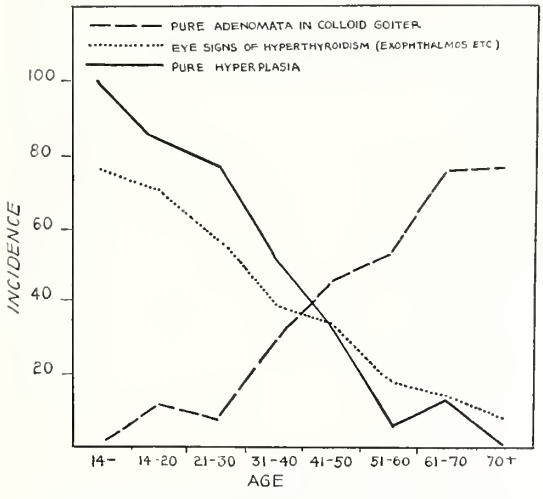


Chart 1: Relationship of the age of patients by decades to the incidence of adenomata in the thyroid and to the presence of exophthalmos.

nodular goiter as age advances. Practically all the thyroids examined were goitrous but almost no adonomas were present in the glands of the children. In the oldest age group all the thyroids showed adenomatous change (Chart 2).

These findings can be explained first on the basis of Rienhoff's studies[2] in which he has shown that the development of adenomata is the result of degenerative and regenerative changes in the thyroid. These changes develop gradually and become progressively more marked with the passage of time, thus resulting in a higher incidence of adenomata in the older age groups. A second explanation, and one which may be

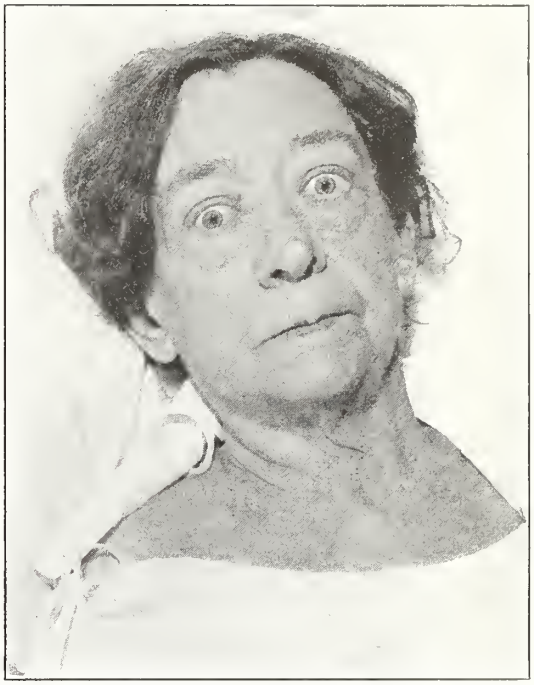


Figure 1: Exophthalmic goiter occurring in a woman over 70 years of age. Stage operations followed by complete recovery.

of even greater significance, postulates that the adenomata develop as a result of the tendency to epithelial neoplasia that comes with advancing age. The incidence of adenomatous polypi of the colon, of hyperkeratosis of the skin, and of adenomas and carcinomas throughout the entire body is to a large extent dependent on the age of the patient. Thus it may be that adenomatous change in the thyroid is the result of a poorly understood neoplastic tendency associated with advancing age and acting upon a gland rendered abormal either by the hyperplasia of iodine deficiency (endemic goiter) or by the hyperplasia associated with the development of Grave's disease.

In any case it is clear that the development of a diffuse goiter either with or without hyperthyroidism is usually followed by the development of adenomata and that these adenomata, absent in childhood, are nearly always present in the goiters of patients in the final decades of life.

EXOPHTHALMOS

Exophthalmos may occur at any age or be associated with any type of goiter provided that

hyperthyroidism is present. It is true that exophthalmos is most commonly associated with the diffuse hyperplasia of the thyroid as seen in Grave's disease but it also occurs in the typical "secondary" hyperthyroidism in which adenamata occurring in colloid goiters develop a functional hyperactivity and produce hyperthyroidism. In

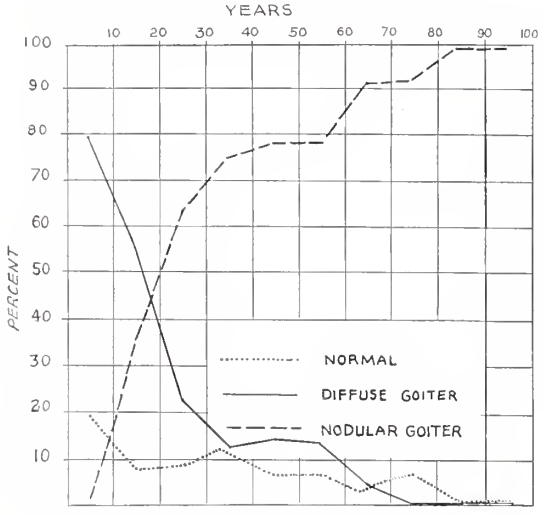


Chart 2: Adapted from Wegelin by A. Graham, to show the incidence of adenomatous goiters related to the age of the patient. (Figures prepared from a region of endemic goiter).

the group of 200 cases analyzed in this study, the ocular signs of hyperthyroidism were present in seven cases of adenomatous goiter in which the non-adenomatous portion of the thyroid was a pure colloid goiter and in which the adenoma had been present for a number of years before hyperthyroidism developed.

Of the patients having diffuse goiter with hyperthyroidism, 61 per cent showed ocular signs of hyperthyroidism. In the group with "secondary" hyperthyroidism in which a colloid goiter containing adenomas was present before the hyperthyroidism developed, the incidence of exophthalmos was less than 10 per cent.

TABLE 1

INCIDENCE OF EXOPHTHALMOS AS RELATED TO AGE OF PATIENT AND TYPE OF GOITER

	Age below 40	Age above 40
Adenomata in colloid goiter	Exophthalmos present 22 per cent	Exophthalmos present 8 per cent
Adenomata in hyperplastic goiter	Exophthalmso present 62 per cent	Exophthalmos present 25 per cent
Pure hyperplasia without adenomata	Exophthalmos present 73 per cent	Exophthalmos present 30 per cent

It is interesting to note that 87 per cent of the patients with diffuse hyperplasia of the thyroid were under 40 years of age as compared to only 11 per cent of all cases of "secondary" hyperthyroidism. Is it not possible that the presence or absence of exophthalmos correlates with the age of the patient as well as with the presence or absence of adenomas in the thyroid?

That this hypothesis is to a certain measure true is evidenced by the figures in Table 1 in which the incidence of exophthalmos is correlated with the age of the patient and the type of goiter present. From these figures it is apparent that, although the incidence of exophthalmos is higher in patients with hyperthyroidism of the "primary" type, it is also closely related to the age of the patient. Its infrequent appearance in patients with hyperthyroidism of the "secondary" type can be explained, at least partially, on the basis of the low incidence of this type of hyperthyroidism in the younger patients in whom exophthalmos is most apt to develop. The actual

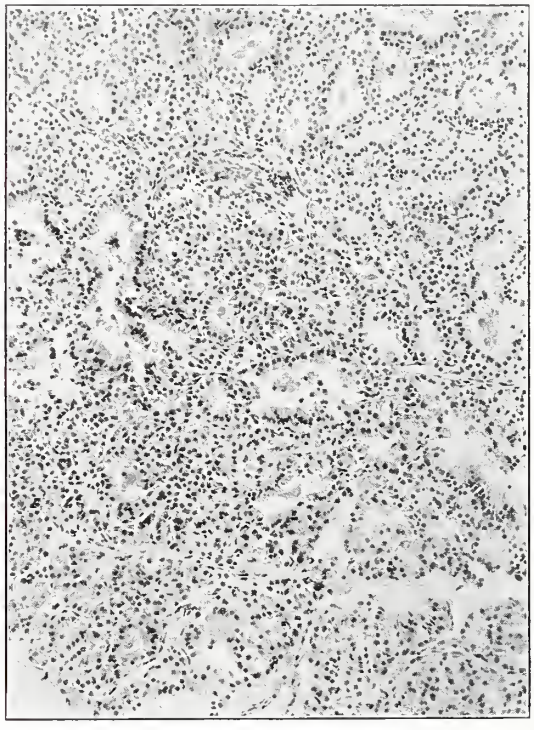


Figure 2: Photomicrograph showing marked hyperplasia of thyroid resulting from iodine deficiency. Basal metabolic rate minus 9 per cent. No clinical evidence of hyperthyroidism.

incidence of exophthalmos is nearly as high in patients under 40 with the "secondary" type of hyperthyroidism as it is in patients over 40 with hyperplastic glands containing no adenomata.

CARDIAC COMPLICATIONS

Auricular fibrillation, as a complication of hyperthyroidism, has been supposed to be related

directly to the presence of adenomata in the thyroid, the incidence being much higher in patients with adenomatous goiters than in those with diffuse goiters. Here again it is quite true that auricular fibrillation is approximately twice as common in the adenomatous group as it is in the diffuse, 16.6 per cent of the patients with adenomatous goiter having auricular fibrillation either before or after operation as compared to 8.1 per cent of the patients with diffuse goiters. If these cases are grouped by decades, however, an entirely different picture is seen and it becomes apparent that auricular fibrillation is actually as common in patients with diffuse goiters as in patients in the same age group having adenomata.

Group for group, as shown in Table 2, auricular fibrillation was actually more common in patients with diffuse goiter in the decades 20 to 30, 30 to 40, and 60 to 70. It is therefore clear that the incidence of auricular fibrillation varies with the age of the patient rather than with the type of goiter.

TABLE 2

INCIDENCE OF AURICULAR FIBRILLATION AS RELATED TO AGE OF PATIENT AND TYPE OF GOITER

Age	10 yrs.	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+ yrs.
No. of Cases	4	12	49	76	62	35	18*	0	
Incidence of auricular fibrillation in patients with diffuse goiter	0.0%	0.0%	8.0%	3.9%	4.8%	20.0%	42.0%		
No. of Cases	———	2	17	54	114	124	146	8	1
Incidence of auricular fibrillation in patients with adenomatous goiters	———	0.0%	0.0%	3.7%	9.6%	21.7%	35.0%	25.0%	0.0%

Diffuse 258 cases 8.1% showed auricular fibrillation.
Adenomatous 466 cases 16.6% showed auricular fibrillation.
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* Because only seven cases of diffuse goiter with hyperthyroidism occurred in patients over 60 years of age in the period covered by this analysis, this group was enlarged by including all cases of hyperthyroidism in patients from 60 to 70 years of age over a period of several years, both diffuse and adenomatous types over the same time period being considered.

DISCUSSION

The classification of goiter has remained in a state of confusion because there has been a persistent and futile attempt on the part of clinicians to correlate the clinical with the pathological findings in patients with hyperthyroidism. Since hyperplasia of the thyroid gland is a common finding in exophthalmic goiter, many believe that the finding of a hyperplastic gland is equivalent to the presence of clinical evidences of hyperthyroidism. Yet marked hyperplasia of the thyroid, indistinguishable from that found in the most severe case of exopthalmic goiter, can occur as the result of iodine deficiency and is usually, in these cases, accompanied by a mild hypothyroidism (Fig. 2). Conversely, active hyperthyroidism is occasionally seen in patients whose thyroid glands, often as the result of prolonged treatment with iodine, are in the pure colloid phase and are indistinguishable histologically from a simple endemic goiter.

Let us grant that there can be no certain correlation between the clinical and the pathological findings in patients with goiter. Can there not, however, be a certain and a definite clinical separation of patients with hyperthyroidism into well defined groups such as exophthalmic goiter and toxic adenoma?

Many authors have attempted to draw sharp lines of differentiation between the diffuse goiter with hyperthyroidism and the adenomatous goiter with hyperthyroidism. They have considered hyperthyroidism associated with a diffuse goiter to be a form of dysthyroidism induced by the secretion of a qualitatively abnormal thyroid substance[3] and have considered the hyperthyroidism associated with an adenomatous goiter to be the result of an excessive secretion of the normal thyroid hormone. They have even differentiated these two conditions as to treatment, stating that iodine is contraindicated in the preoperative treatment of patients having adenomatous goiters with hyperthyroidism[4].

Similarly, the text books are filled with points of clinical differentiation between the symptoms and signs of the hyperthyroidism associated with diffuse goiters and those associated with nodular goiters. Although these clinical differences un-

questionably exist, we believe that they are as much the result of the differences in the ages of the patients affected as the result of any qualitative differences in the two diseases; that is, the disease is hyperthyroidism and its manifestations will vary more with the age of the patient it affects than with the type of goiter that is present.

It has long been recognized that the average age of patients having hyperthyroidism associated with adenomatous goiter is a decade greater than that of patients with hyperthyroidism and diffuse goiter. In the older patients, and hence usually in patients with adenomatous goiters, exophthalmos will be rare and cardiac complications common. In the younger patients exophthalmos will be the rule and cardiac complications will rarely if ever be found.

From the preceding discussion it is clear not only that there is little clinical difference between the hyperthyroidism associated with diffuse goiters and that associated with nodular goiters, but also that it is often impossible to determine whether or not adenomata are present before operation.

It has been our clinical experience that the hyperthyroidism associated with adenomatous goiters responds to preoperative treatment with iodine in much the same way as does the hyperthyroidism associated with diffuse goiters. The response is often less dramatic than is commonly seen in patients with diffuse hyperplastic glands but it is none the less definite and may be as striking as is seen in the patients with true Grave's disease.

Since there is little clinical difference between the hyperthyroidism associated with diffuse and with nodular goiters, since the response of both types to iodine is favorable, since there is no reliable evidence that iodine induces an exacerbation of the hyperthyroidism associated with any type of goiter, and finally since it is not possible before operation to differentiate with certainty diffuse from nodular goiters, it is needless, from the therapeutic standpoint, to differentiate between the various types of goiter that produce hyperthyroidism.

For purposes of classification of goiter, the grouping adopted by the American Association for the Study of Goiter is the simplest and the most rational. From the clinical standpoint it is not important whether or not adenomas are present, the various manifestations of hyperthyroidism being dependent more upon the age of the patient and the severity of the disease than upon the type of goiter which produces the hyperthyroidism.

SUMMARY

1. The incidence of adenomata in the goiters of patients with hyperthyroidism starts at 0 per cent in the youngest age groups and reaches 100 per cent in the oldest age groups.

2. The incidence of exophthalmos is dependent as much on the age of the patient as on the type of goiter that produces the hyperthyroidism.

3. The incidence of auricular fibrillation in patients with hyperthyroidism is related more closely to the age of the patient than to the presence or absence of adenomata in the thyroid.

4. There is no essential difference in the clinical expression of the hyperthyroidism associated with adenomatous goiters and the hyperthyroidism associated with diffuse goiters.

5. There is no certain way of differentiating diffuse from adenomatous goiters before operation.

6. There is no essential difference in the response of hyperthyroidism to iodine whether the goiter be diffuse or adenomatous.

7. The fundamental issue in a patient with hyperthyroidism would appear to be his age and his reaction to the disease rather than the presence or absence of adenomata in the thyroid.

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Roentgen Ray and Gastro-Intestinal Tract

Remarkable advances have occurred in the study of the gastro-intestinal tract by means of the roentgen ray, but one of the most unintelligent requests made is the gastro-intestinal series which comprises roentgenography of the stomach, colon, and gallbladder. By the history, physical examination, and simplest indicated type of laboratory work the physician should arrive at a conclusion as to what gastro-intestinal lesion may be present in his patient. He should then ask for specific roentgen-ray studies to confirm the diagnosis.

The request for a complete series has acted as a short cut to diagnosis at the expense of sound clinical judgment, and is often of unnecessary cost to the patient. Limiting the amount of inital roentgen-ray expenditure may make it possible to request subsequent studies for comparison and confirmation of earlier findings. The continued use of the roentgen ray as a substitute for mental activity on the part of the practitioner can result only in failure to develop a clinical sense so much needed today in the practice of medicine.—A. A. Aaron, M.D., Buffalo, N. Y.; Pa. Med. Jr., Vol. 42, No. 8, May, 1939.

Diagnosis and Treatment of Left Subphrenic Abscess

B. N. CARTER, M.D.

The Author

● Dr. Carter, Cincinnati, Ohio, is a graduate of the University of Virginia, 1919; member American Surgical Association, Clinical Society of Surgeons, Southern Surgical Association, American Association for Thoracic Surgery; assistant director of surgical service, Cincinnati General and Children's Hospitals; associate professor of surgery, University of Cincinnati College of Medicine.

WHEN the subject of subphrenic abscess is being considered, as a rule only those abscesses that occur beneath the right half of the diaphragm are thought of and rarely, if ever, is the possibility of there being an abscess beneath the left half given any consideration. In other words, to the majority of physicians subphrenic abscess really means **right** subphrenic abscess. It is the purpose of this paper to emphasize the importance of the subphrenic abscesses which occur on the left side and to make a plea that the possibility of there being a left subphrenic abscess be considered whenever any subphrenic collection of pus is suspected. Subphrenic abscesses do occur on the left side though much more rarely than on the right. In looking over the literature it is evident that subphrenic abscesses occur in the proportion of one on the left to every three or four on the right. This at first glance seems to be a high ratio and it may be in a small series of cases but when one finds reports of a large number of cases the proportion is higher. In the Cincinnati General Hospital in the past 10 years there have been 29 abscesses on the right side and six on the left. The important fact to remember is that left subphrenic abscesses do occur and that, if a subphrenic abscess is suspected but not found on the right side, the possible occurrence of an abscess on the left must be ruled out. Likewise, if one has drained a right subphrenic abscess but the signs or symptoms of continued hidden sepsis persist it is imperative to demonstrate that there is not also an abscess beneath the left half of the diaphragm.

Several spaces have been described beneath the left half of the diaphragm in which abscesses may occur, but the description of the anatomy of this area by Barnard in 1908 seems to me to be simplest and best. His three spaces are (1) the left anterior intraperitoneal space, (2) the left posterior intraperitoneal space and (3) the left extraperitoneal space. The latter is of little importance in a paper of this kind and is of more anatomical than of clinical significance. It is really the loose areolar tissue which surrounds the pancreas, kidney and the posterior aspect of the descending colon. Abscesses in this space point in the lumbar region and can not be differentiated from perirenal abscess.

The left posterior intraperitoneal space is in reality the lesser peritoneal sac. Abscess in it occurs chiefly from the perforation of ulcers or carcinoma on the posterior wall of the stomach, though occasionally infection enters this space through the foramen of Winslow.

By far the most important space beneath the left leaf of the diaphragm is the left anterior intraperitoneal. It is this space that is far and away the most commonly infected and abscesses in it constitute the great majority of those found on the left side. Other names for this space are the perigastric or perisplenic. Its anatomical boundaries are the diaphragm above, the coronary or falciform ligaments to the right, the spleen and lateral abdominal wall to the left, the left lateral ligament of the liver behind, the adhesions between stomach or omentum to the anterior abdominal wall below. This space is a large one and an abscess may occupy all of it or only a portion, depending on where adhesions limit the infection. Thus if the stomach adheres to the anterior abdominal wall, the abscess will lie beneath the costal margin and can not be palpated on abdominal examination, but if the omentum or transverse colon becomes adherent and forms the lower border of the abscess, one can readily feel a mass protruding beneath the rib margin.

The anatomical boundaries of the anterior intraperitoneal space are important but the routes by which pus may reach this space are equally so. Barnard described a pathway by which infection can and does frequently reach this space from the pelvis. Pus from the pelvis with the patient in the recumbent position may rise until it reaches the left sacro-iliac region, which is the highest point of the "divide" between pelvis and upper abdominal areas. From here it flows into the gutter formed by the bodies of the vertebrae on the right side, the mesentery of the descending colon on the left side and the root of the mesentery anteriorly. This gutter leads the pus up to the duodenal-jejunal flexure,

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where it passes forward along the splenic flexure to reach the left anterior intraperitoneal space. The importance of this pathway is borne out by the fact that there was pus in the pelvis in five of the six cases which forms the basis of this report.

In making a diagnosis of any subphrenic abscess, be it right or left, the history is of the utmost importance. It must be borne in mind that subphrenic abscess always occurs as a result of a primary inflammation somewhere in the abdomen or, rarely, in the thorax. Therefore, the story of a pre-existing intra-abdominal infection such as a ruptured appendix, a perforated duodenal or gastic ulcer, a postpartum infection, etc., is essential. Left subphrenic abscess should be especially considered when there has been a history of postpartum infection with pelvic suppuration, or a pelvic abscess due to other causes such as a ruptured appendix, diverticulitis, etc. For instance, in six cases of left subphrenic abscess which have been seen recently, the etiology in half was postpartum infection. In order to make a diagnosis of a subphrenic abscess, one must first of all bear in mind the possibility of there being such an abscess present, especially when there is an unexplained fever following an intraperitoneal infection. The old adage "Pus somewhere, pus nowhere, pus under the diaphragm" should make one conscious of the possibility of subphrenic abscess and once this possibility is considered, the diagnosis can be readily made. These abscesses are missed because they are not thought of.

The most important and frequent symptom of left subphrenic abscess is pain in the left lower thorax suggestive of pleuritic pain and especially pain referred to the neck or shoulder which is the characteristic pain produced by affections of the diaphragm. This is in direct contrast to pain which is produced by subphrenic abscess on the right. In this latter abscess there is little or no pain and rarely have I seen pain referred to the neck. The explanation of this is most probably that on the right the abscess is bounded below by the fixed firm liver, whereas on the left the abscess is not encompassed by rigid structures but by the yielding stomach, spleen, falciform ligament or colon. Therefore, there is apt to be more motion on the left with a resulting greater pain. In five of the six cases reported here (see table I) there was severe pain in the lower thorax and neck. Owing to the more yielding character of the structures on the left, there is apt to be less bulging of the interspaces, less fullness of the lower thorax and less fixation of the lower thorax, than in the case of right-sided abscess. As has been stated above, if the stomach forms the lower border of the abscess there will be no mass presenting below the rib margin but there may be tenderness on pressure up be-

TABLE I

Case	Etiology	Time Elapsed Before the Abscess was Drained	Location of Abscess	Pain	Complications	Operation	Result
1	Postpartum Infection	8 Months	Anterior Intra-peritoneal	Severe in Lower Thorax and in Shoulder	Perforation Into Transverse Colon	Transpleural 8th Rib in Midaxilla, One Stage	Well
2	Ruptured Appendix	27 Days	Anterior Intra-peritoneal	Lower Thorax on Inspiration	Rupture Through Diaphragm Empyema	Drainage of the Empyema, No Direct Attack on Abscess	Well
3	Ruptured Appendix with Pelvic Abscess	1 Month	Anterior Intra-peritoneal	Lower Thorax on Inspiration	Rupture Through Diaphragm Empyema	Drainage of the Empyema, No Direct Attack on Abscess	Well
4	Postpartum Infection	2 Months	Anterior Intra-peritoneal	Severe in Lower Thorax and Neck	Rupture Into the Peritoneal Cavity	Transpleural 9th Rib in Midaxilla	Died General Peritonitis, 7 Days
5	Stab Wound of Abdomen with Perforations of Ileum	Refused Operation	Anterior and Posterior Intra-peritoneal	None	None	Refused	Died General Peritonitis 10 Days
6	Pelvic Infection Following Curettage	14 Days	Anterior Intra-peritoneal	Severe in Lower Thorax and Neck	None	Transpleural 9th Rib in Midaxilla, 2 Stages	Well

Barnard reported spontaneous rupture of 23 subphrenic abscesses—into bronchus, 4 cases—into pleura, 5 cases—into stomach, 8 cases—into colon, 2 cases—through the skin, in 2 cases—into peritoneal cavity, 1 case—and into small intestine in 1 case.

neath the costal margin, especially on inspiration. If the colon limits the abscess below a mass can be felt in the upper left quadrant which is as a rule triangular in shape, the sides of the triangle being the costal margin above, the falciform ligament to the right and the colon below. Left subphrenic abscess is as a rule diagnosed late and on this account there are apt to be thoracic signs which are secondary to the pus which lies below the diaphragm. These signs are those of fluid in the left chest or of pneumonitis with consolidation. The well known confusion between pus beneath a diaphragm and pneumonia or pleurisy is even more apt to exist on the left than on the right. A good rule to follow on either side is that fluid in the thorax in a patient who has had a previous intra-abdominal suppuration should be considered as secondary to pus beneath the diaphragm until proved otherwise.

Although the physical signs of a bulging, fixed diaphragm, of possible fluid in the chest in varying amounts and of possible pain on compression of the lower thorax are of importance in making a diagnosis of subphrenic abscess, yet the X-ray and the fluoroscopic examination are the best methods of clinching the diagnosis. The fluoroscope is the one most indispensable agent in discovering the abscess. Characteristically with the X-ray one finds a high diaphragm and with the fluoroscope one that is fixed. An important point to remember in the case of left subphrenic abscess, however, is that the diaphragm may not be much elevated owing to the yielding structures which form the floor of the abscess and also that even if the left diaphragm is high the discrepancy in its height as compared to the right is not so noticeable since it is normally lower than the right.

On the right side even a slight elevation of the diaphragm exaggerates the usual relative difference between it and the left. If on X-ray examination an air bubble with a fluid level beneath it is seen under the right diaphragm the diagnosis of abscess there can be made with certainty. Such a condition is easy to detect on the right and can not be confused with any other condition. On the left, however, such a finding can easily be confused with the normal gas bubble in the stomach, consequently the fluid level and air in a subphrenic abscess on the left can be easily overlooked. However, the true nature of such air or fluid can be readily determined by the simple expedient of filling the stomach with barium. Under normal conditions the barium filled stomach of a patient placed in low Trendelenberg position lies in contact with the diaphragm. If an abscess is present beneath the diaphragm a considerable space exists between stomach and diaphragm and this space may contain fluid or air, or only fluid. By this simple method one can instantly determine the nature of fluid and air beneath the left diaphragm and even if there is no air present, can accurately decide whether or not there is an abscess beneath the left half of the diaphragm which is displacing the stomach from its normal position. I can find no reference to the use of this maneuver in the surgical literature. It should be used whenever there is a suspicion of a left subphrenic abscess and by its use those abscesses can be diagnosed with certainty.

The treatment of left subphrenic abscess consists in general of adequate surgical drainage of the abscess as soon as is feasible after the diagnosis is established. Those abscesses that present below the left costal border are best approached by an incision below the costal margin which is deepened down to the peritoneum, the peritoneum is stripped free until the abscess is felt beneath it. The peritoneum where it is adherent to the abscess is opened, the abscess being drained without entering the free peritoneal cavity. The same procedure may be used in the case of abscesses which lie beneath the costal border but which are not far removed from it. However, if the abscess can not be palpated or if there is no tenderness beneath the costal margin a transpleural approach through the midaxillary line would seem the most direct attack on the abscess. If the costophrenic angle is obliterated by adhesions between the diaphragmatic or parietal pleura the abscess can be safely drained in one stage. If there are no adhesions between these structures the operation is divided into two stages, the first consisting of resection of one or two ribs in the midaxillary line, exposure of the visceral pleura and the packing of it against the diaphragm, and the second, two days later, of opening the diaphragm when it has become adherent. The costophrenic angle is very deep here and the abscess usually occupies such a large area beneath the diaphragm that the two pleurae will almost always be found to be adherent so that the operation can be done in one stage. The left posterior intraperitoneal abscesses, which are in reality abscesses occupying the lesser peritoneal sac, are best drained by laparotomy and opening of the gastro-colic omentum. The abscesses in the left extraperitoneal space can readily be opened by incision through the overlying soft tissues.

SUMMARY

1. Left subphrenic abscesses have not been emphasized sufficiently in the past.

2. The diagnosis of left subphrenic abscess can be greatly simplified by X-ray examination with the patient in the Trendelenberg position after the stomach has been filled with barium.

3. Left subphrenic abscesses frequently follow infection in the pelvis, especially postpartum infections.

Prevention and Treatment of General Peritonitis

BERNHARD STEINBERG, M.D.

IN the evaluation of therapeutic measures in peritonitis, it is helpful to reconstruct and visualize the mechanisms of several factors, such as: the manner in which the disease develops, the function of the protective body elements; and the way in which death or survival results. The knowledge of the underlying mechanism of the disease will allow the recognition of the relative value of a therapeutic measure. As is true of any other morbid condition of the body, peritonitis is not a static disease, but varies with the intrinsic and extrinsic modifying influences. Treatment, necessarily, follows these changing conditions. A measure which is valuable during one phase of the disease, may be of no help in another period of peritonitis.

Treatment of general peritonitis may be classified into two broad categories. The purpose of one type of treatment is to enhance the natural defensive elements of the body either directly or indirectly. The second method consists of introduction of such chemical substances or antibodies that will attempt to destroy or neutralize the disease producing agents, such as bacteria and their toxic substances. In the former procedure, it is obviously necessary to be familiar with the nature of the defensive elements and methods of their quantitative and qualitative enhancement. Such stimulation may be accomplished, to some extent, indirectly by conserving the functions of the body such as that of the cardiovascular, respiratory and other systems. Such conservation may allow the body to increase, to some extent, its own defense mechanism. The second therapeutic procedure depends on the administration of chemical substances or antitoxins and antisera in the hope that they will destroy, minimize or neutralize the bacteria and their toxins. As a matter of fact, both of these broad categories of treatment may be employed depending upon the phase of the disease.

The intrinsic factors which influence the disease are those concerned with the bone marrow cell response, the bactericidal activity of the blood and the reticulo-endothelial system, and the integrity of the cardiovascular system. A bone marrow which promptly responds by an acceleration of polymorphoneculear production, and a vascular system that carries these cellular antibodies to the site of bacterial invasion offer the host advantages over an inactive bone marrow and an incompetent cardiovascular system. Of the extrinsic factors, the quantity of initial contamination, the multiplicity of bacterial species, the ability of bacteria to produce toxic substances; their potency, and time of elaboration determine the variables.

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The Author

Dr. Steinberg, Toledo, Ohio, is a graduate of Boston University School of Medicine, 1922; member American Association of Pathologists and Bacteriologists; Federation of the American Societies for Experimental Biology; Society for Experimental Biology and Medicine; American Society for Clinical Pathologists; director of laboratories and medical research, Toledo Hospital, Toledo, Ohio.

DEVELOPMENTAL MECHANISM OF PERITONITIS

In describing the character of onset of peritonitis, it is necessary to draw upon experimental investigations to interpret some clinical experiences. That peritonitis induced by a gangrenous, ruptured appendix differs in its severity and mechanism from that induced by a ruptured peptic ulcer is well known. The reason for this difference is supplied by the following investigations. The intraperitoneal introduction of bacteria, suspended in ordinary fluid media such as salt solution or broth, rarely produces peritonitis and only occasionally death. On the other hand, addition of foreign substances (such as feces or gum tragacanth) to the bacteria almost invariably produces peritonitis and is more apt to result fatally.[1] In a gangrenous or ruptured appendix, bacteria alone or with very little fecal material enter the peritoneal cavity. On the other hand, in a ruptured peptic ulcer, a considerable amount of foreign bodies (food and mucin) are poured into the peritoneal cavity. The presence or absence of foreign material determines the outcome and the mechanism of peritonitis in these two types of clinical cases.

In instances in which peritoneal soiling is gradual (such as gangrenous appendicitis) bacteria are deposited on the peritoneum, and for the first 18 to 24 hours, little or no bacterial multiplication occurs. It is the period of "bacterial lag," or an adaptation by the microorganisms to the new environment. During this phase of adaptation, inflammation of the peritoneum is very slight. Polymorphonuclear luekocytes migrate into the peritoneal cavity and phagocytose the invading bacteria.[2] At the same time, bacteria

pass out of the peritoneal cavity through the lymphatics and capillaries and are acted upon by the bactericidal substances of the blood and are ingested by the reticulo-endothelial system of the body. Thus, three defense elements are at work during this stage of peritonitis. The local phagocytosis in the peritoneal cavity, the action of the blood, and the phagocytic properties of the reticulo-endothelial cells cooperate in overcoming the infectious process. This period of maximum efficiency of the body defenses is designated as the primary stage of peritonitis.

After this period of 18 to 24 hours bacteria begin to multiply. Following the first several hours in which the multiplication is slow, there is a rapid spurt of bacterial division. The degree of bacterial proliferation and their eventual number depends upon the number of available polymorphonuclears. The greater the number of these cells, the more apt are the bacteria to be phagocytosed and their multiplication inhibited or stopped.[3] With the appearance of a larger number of bacteria, the inflammatory process becomes of a greater severity. During the period of bacterial increase and the consequent peritoneal inflammation, the defense mechanism becomes gradually reduced in its efficacy. Fewer bacteria escape from the peritoneal cavity and less leukocytes can enter. With an increasing number of bacteria, the inflammatory process becomes more severe with slowing and eventual stagnation of the circulation. Capillary and lymphatic thrombosis, with the circulatory stasis, effectively inhibit bacterial escape and leukocytic migration and do away with the essential defensive measures of the body. This period which begins with bacterial proliferation and terminates with the maximum number of bacteria in the peritoneal cavity and marked peritoneal inflammatory changes extends over an average period of 24 hours and is designated as the secondary stage of peritonitis.

When the bacteria reach a sufficiently large number and age, they begin to elaborate soluble toxic substances. Whereas inflammatory changes of the peritoneum interfere with the passage of the larger particulate bacteria, the diffusion of the crystalloid soluble toxins shows little interference.[4,5,6,7] For the next 24 hours to three days, the toxic substances diffuse from the peritoneal cavity and affect the various viscera. The visceral damage is proportional with the potency and the volume of the toxic substances secreted by the bacteria and diffused from the peritoneal cavity. The effect is especially significant on the myocardium of the heart. With myocardial damage, there is a further impediment to the circulation with a more pronounced stasis. In addition to the direct action of the toxic substances on the lungs, kidneys and liver, there is an additional burden upon these organs because of circulatory impairment. As a consequence, pulmonary edema, congestion, bronchopneumonia, atelectasis, cloudy swelling of kidneys, nephritis or nephrosis, cloudy swelling and passive congestion and degenerative changes of the liver, result. In the early phase of this period, the visceral changes are still reversible. If the action of the toxic substances are stopped, the organs may return to normal. In the later phase, these changes become irreversible and the damage is irreparable. This period is designated as the tertiary stage of peritonitis.

Peritonitis, induced by bacteria from the gastrointestinal tract, shows the colon bacillus present predominantly at the beginning with a mixture of other bacteria in the later stages. The organisms which are most frequently involved, in addition to the colon bacillus, are the Streptococci fecalis and B. Welchii. The colon bacillus, however, represents the most significant of these bacteria and its virulence is probably enhanced by the presence of the other microorganisms.[8] The ability of the colon bacillus to grow rapidly and its very meager requirement for growth results in its marked proliferation and frequent outgrowth of the other bacteria. This rapidity of growth constitutes one of its dangerous characteristics in peritoneal contamination. The other significant quality of the colon bacillus is its capacity to produce soluble toxic substances in the early stages of its growth (18 to 24 hours.)[9,10]

CAUSE OF DEATH IN PERITONITIS

There are several conceptions exisiting regarding the factors which are responsible for death in peritonitis. One concept incriminates the intestinal bacteria[11] and assumes that bowel paralysis favors multiplication of the microorganisms within the bowel lumen and production of toxins which are then absorbed from the bowel. This concept is not supported by sufficient experimental data and is opposed by known physiological reactions of the peritoneum. The other general concept involves the bacteria which contaminate the peritoneum. Several species of microorganisms, and various routes of passage are accused. The available experimental data point, however, that the cause of death is due to the diffusion of the soluble toxic substances produced by the bacteria contaminating the peritoneum.[12] These toxic substances act upon the viscera and especially the myocardium of the heart. Death is due to the damaged myocardium and a resultant incompetent heart.

Experimental and clinical investigations disclosed a close relationship between the peritoneal exudate and the outcome of animal and man. An exudate containing free bacteria with a paucity of polymorphonuclears is associated with a fatal outcome. On the other hand, absence of free bacteria and a marked polymorphonuclear exudation is associated with survival.

The effect upon the cardiovascular system was

demonstrated by blood pressure determinations and electrocardiographic tracings. Clinically and experimentally, successive drops in the systolic blood pressure were observed coincident with the successive stages in peritonitis. Electrocardiographic tracings showed depression of the ST interval and the appearance of a diphasic T wave. These findings may be interpreted to indicate a damaged myocardium.[13] Presence of fatty degeneration of the myocardium and dilatation of the heart chambers serve as further confirmatory factors of myocardial injury and incompetence.

TREATMENT THROUGHOUT THE COURSE OF PERITONITIS

During a period extending from the bacterial soiling of the peritoneum to the marked bacterial proliferation, the normal defenses of the host may overcome the infectious process, providing the degree of the defense is equal to or greater than the degree of the infection. If the infectious agent is greater than the host's resistance, the individual succumbs. It is obviously difficult to evaluate either the degree of infection or the resistance during the course of peritonitis. Until such a determining procedure that will gauge these factors is devised, it must be assumed that the host's resistance is insufficient for a given infection. It is a common practice to enhance the individual's resistance against disease by general supporting measures, but the preferable course is to increase the specific mechanism concerned in the struggle against the contaminating agent in peritonitis.

Since a rapid and a sufficient mobilization of polymorphonuclears within the peritoneal cavity is the essential instrument by which the body defends itself against peritonitis, enhancing measures must preserve and increase the mechanism of increased cell production and attraction to the sites of struggle. It has been demonstrated that the introduction intraperitoneally of a "leukocytic evoking and stimulating substance" suspended in gum tragacanth is able to provide the necessary polymorphonuclear mobilization in the peritoneal cavity to overcome any possible infection.[14,15] Further modifications of this substance allows such a leukocytic accumulation within three hours after its introduction. Since bacteria require an average of 18 hours to overcome the "bacterial lag" and adapt themselves to new environment before any consequent multiplication occurs, the leukocytic mobilization may be said to have an edge on the infectious process by an average of 15 hours. By the time the bacteria have adapted themselves to the new environment, they have been phagocytosed by the polymorponuclears.

As a result of this rapid attraction of a large number of leukocytes, the defense mechanism is enhanced and is able to overcome the infectious process, even though it may be of some 15 hours duration. An illustrative experiment demonstrates the action of this leukocyte evoking and mobilizing substance (Coli-Bactragen). A series of dogs were injected with Coli-Bactragen at intervals of 3, 6, 24, 48 hours and three days prior to production of experimental peritonitis, which corresponds in its severity to the early period of the **secondary** stage with its fairly large number of bacteria and slight to moderate inflammation of the peritoneum. The results of this experiment reveal survival of all the animals protected within a 48-hour period and an 80 per cent. survival in the three-day period and a rapid death of all the control animals that were not protected.

TABLE 1

THE FOLLOWING ILLUSTRATIVE EXPERIMENT DEMONSTRATES THE PROTECTIVE VALUE OF THE MATERIAL (COLI-BACTRAGEN).

Total No. of animals	Severe peritonitis produced	Protected against peritonitis	Number of hours between protection and peritonitis	Outcome	% Survival
15 controls	Yes	No	.....	All died	0
10	Yes	Yes	3 hours	All survived	100
10	Yes	Yes	6 hours	All survived	100
10	Yes	Yes	24 hours	All survived	100
10	Yes	Yes	48 hours	All survived	100
10	Yes	Yes	3 days	8 survived	80

TABLE 2

CLINICAL CASES PROTECTED WITH COLI-BACTRAGEN*

Patients protected	Clinical conditions in which Coli-Bactragen was used	Deaths attributable to causes other than peritonitis
391	1. Carcinoma of large bowel 2. Diverticulitis 3. Intestinal obstruction 4. Pelvic inflammatory disease 5. Appendicial abscess 6. Gastric ulcer 7. Appendicitis 8. Carcinoma of stomach 9. Cholecystitis	Pneumonia Uremia Lung abscess Lung abscess with empyema Coronary occlusion

*None of these patients died of peritonitis.

Clinical application of the principles described

includes several thousand patients given Coli-Bactragen in the **primary** or early **secondary** stages with an almost complete eradication of peritonitis. However, because of inability to secure accurate and complete clinical data in all these patients attended by hundreds of physicians throughout the country, a survey of 391 patients, whose complete histories were available, was made and is presented. Although the greater number of these patients presented some disease of the gastro-intestinal tract which might have

TABLE 3

PATIENTS PROTECTED WITH COLI-BACTRAGEN

Because of circumstances in the operative procedure, peritonitis was assumed to be inevitable

Patients	Clinical conditions exemplified	Circumstances contributing to peritonitis	Outcome
3	Diverticulum of sigmoid	Feces or pus escaped into peritoneal cavity	Survived. No ill effects. No peritonitis
5	Appendicial abscess	Oozing of pus or feces from abscess into peritoneal cavity at operation	Survived. No ill effects. No general peritonitis after operation. One case with empyema
2	Tubo-ovarian abscess	Pus spilled into peritoneal cavity. Pus contained streptococci	Survived. No ill effects. No peritonitis
4	Carcinoma of colon	Fecal material escaped into peritoneal cavity. Bowel obstructed and thin	Survived. No ill effects. No peritonitis

resulted in peritonitis, none of them either developed or died because of the disease. Similar clinical results were obtained by other investigators.[16]

Perhaps more significant as a clinical evaluation of the efficacy of the protective material (Coli-Bactragen) is a number of patients who, by virtue of their condition, were very prone to develop peritonitis. Protection with Coli-Bactragen at the time of the operation, was associated with absence of peritonitis and survival.

It is desired to emphasize that the protective material though so labelled does not necessarily serve only the purpose of protection prior to the development of peritonitis. Because of the nature of the peritoneal inflammatory process, and the mechanism of defense and inhibition as described, enhancement of the defensive elements in the **primary** and early **secondary** stages may also serve to overcome an already existing infection of the peritoneum.

When the inflammatory process of the peritoneum has produced barriers by virtue of circulatory stagnation, capillary and lymphatic thrombosis to entrance of polymorphonuclears, any method of stimulation and mobilization of polymorphonuclears is obviously useless. During such a period of peritonitis, supportive measures that maintain the integrity of the cardiovascular system, prevent collapse and infection of the respiratory system, aid local phagocytosis and supply humoral antibodies in the form of blood transfusions are indicated. It is equally essential to abstain from the use of such substances that may decrease the phagocytic efficacy of the leukocytes or in some other manner aid the proliferation of bacteria. The employment of pituitrin, or other substances which tend to forcefully increase the movement of the intestines have been found experimentally to induce such adverse conditions. It may be summarized that treatment in the latter part of the secondary stage and in the early phase of the tertiary stage is essentially one of a supportive nature and abstinence from the use of injurious substances.

When the bacterial population of the peritoneal cavity has reached its peak, toxic substances are produced. These soluble toxins affect the bone marrow with a consequent inhibition both of the maturation and expulsion of polymorphonuclears. Various viscera are involved. The myocardium is damaged. These changes eventually become irreversible and the damage irrevocable. Very little, if anything, can be accomplished during this period of the tertiary stage of peritonitis.

DISCUSSION

Peritonitis must not be accepted as a static disease, the treatment for which is the same, irrespective of the period in which the patient is found. Peritonitis is a progressive condition in which the various defensive and inhibitory elements vary depending upon the duration of the disease and the degree of peritoneal involvement. The defensive and the inhibitory mechanisms make possible a clear cut stage differentiation, which may be employed as a basis for treatment. Because of the rapidly moving progression and the changes in these mechanisms, treatment varies. During a certain period in which the defensive measures of the host may be insufficient to cope with the infectious process, these measures of defense may be enhanced by introduction of a "leukocyte stimulating and evoking material" such as Coli-Bactragen. However, when the peritoneal inflammation produces mechanical barriers to leukocytic migration into the peritoneal cavity and the bone marrow production of leukocytes is inhibited by toxic substances, such enhancement is obviously futile.

Other measures, mostly supportive in nature, must be employed to supply deficient leukocytes and preserve the circulatory and respiratory system from collapse and infection. If it were available, the logical treatment in the secondary and tertiary stages is the administration of a homo-

logous antitoxin or antiserum to neutralize the bacterial toxic substances. During any stage of peritonitis, the water balance and body nutrition must be maintained.[19,20] It must be appreciated that the myocardium of the heart, because it is affected by bacterial toxic substances, is largely responsible for death. The myocardial changes eventually become irreversible and although the individual may live for a day to three days, the fatal outcome is inescapable.

SUMMARY

1. The developmental mechanism of peritonitis is described. There is a definite relationship between survival or death and the course of the local peritoneal progress. Survival is dependent upon a rapid destruction of the invading bacteria by the phagocytic action of the polymorphonuclears.
2. Peritonitis is divided into three stages. The stage division is based on the defensive and the inhibitory mechanisms.
3. These stages serve as guides for treatment, which varies with the progression of the disease.
4. During the entire primary stage and the early secondary stage, enhancement of the normal defensive measures are possible through the medium of a "leukocyte evoking and mobilizing substance" such as Coli-Bactragen.
5. In the latter part of the secondary stage and the early part of the tertiary stage, with the inhibition of the defensive measures, supportive treatment is indicated.
6. The anatomic changes in the tertiary stage are due to the diffused soluble bacterial toxic substances produced in the peritoneal cavity by the invading bacteria. The changes are irreversible and the damage is irrevocable.

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Sinusitis and Pulmonary Disease

Goodale, for many years a professor on the Harvard Medical School faculty and member of the Massachusetts General Hospital staff, in his recent study under Dr. Mosher, reviewed 75 cases of bronchiectasis to ascertain the incidence of sinusitis in pulmonary infections. Bronchiectasis can occur from a number of causes, yet Dr. Goodale's very comprehensive examination brought out evidence that in recurrent pulmonary infection there is an extremely high incidence of chronic sinusitis which constitutes a possible source of reinfection of the lungs.

Hodge, of Montreal, states that in nearly all his patients with bronchiectasis a coexisting sinusitis occurred and that primary bronchitis has a tendency to clear up unless it is kept active by a well marked infection of the sinuses, or if the sinusitis be more primary it frequently augments or protracts the bronchitis. He says statistics from various centers show the association of chronic sinusitis and nontuberculous bronchiectasis to be very common, the percentage varying from 55 to 100 per cent, about 75 per cent being the finding of most observers.

Hodge placed a small amount of iodized poppy-seed oil in the tracheae of 10 patients with bronchiectasis. It reached the nasopharynx in only three of the patients. Quinn and Meyer demonstrated the presence of poppy-seed oil in the thorax after instillation into the nostrils of sleeping patients. McLaurin showed that after being placed in the antra of patients the oil could be demonstrated in the chest by roentgenograms. This all shows that chronic sinusitis must play an important part in many infections that reach the chest, either by inhalation or the lymphatic routes.—W. C. Comee, M.D., Green Bay; Wisc. Med. Jr., Vol. XXXVIII, No. 7, July, 1939.

Pneumococcus Meningitis

JOHN A. TOOMEY, M.D., AND FREDERICK E. ROACH, M.D.

SINCE 1922, 157 cases of pneumococcus meningitis were admitted to City Hospital, Cleveland. All of these patients died, irrespective of treatment. During the past several months, 12 cases of pneumococcus meningitis, all but one of which were admitted to the City Hospital, have been treated with sulfanilamide, sulfapyridine (Dagenan) and specific serums, or with combinations of these therapeutic procedures.

CASE REPORTS

Case 1—C.D., a 38 year old Negro male was admitted on December 31, 1938, and died on January 24, 1939. On December 25, 1938, he vomited, had fever and pain over the right side of the chest and coughed up rusty sputum. Two days later, he was unable to get up. Four days after this, he had pneumonia of the middle and right lower lobes, and three days subsequently, pneumonia of the right upper lobe. He was improving when on January 23, 1939, 29 days later, the temperature suddenly rose to 40.8° C. and signs of meningitis appeared. At this time, the patient was semi-conscious. He could not be aroused. The left upper extremity was weaker than the right and he had weakness of the left facial muscles. He was given a total of 14 grams of sulfapyridine and died 16 hours after having received the first dose of this drug.

Laboratory: The spinal fluid contained 4800 cells, 95 per cent of which were polymorphonuclears; the Pandy test was 4 plus and type IV pneumococcus was found.

Case 2—L.S., a 2½ month old female Negro baby was admitted on December 27, 1938, and died on December 30, 1938. She was perfectly well until November 28, 1938, when she developed a running nose, cough and flatulence. By December 22, 24 days later, the cough had stopped, but the child became irritable and cross, and she had anorexia. She cried throughout the night of December 26. The day following, she had a convulsion and was sent to the hospital.

On admission December 27, the child was irritable. She had a cough, bilateral otitis media and bulging fontanelles. An intravenous injection of 100,000 units of specific type XVIII antipneumococcus rabbit serum was given. On December 28, the temperature rose to 40° C. She had clonic spasms and a bulging ear drum was incised. There was no clinical improvement. Sulfanilamide (11.8 grains) was given at 4 p.m. On December 29, sulfapyridine was started; she received a total of 5 grams of this drug before she died on December 30, 1938.

Laboratory: On admission to the hospital, the number of cells in the spinal fluid was 668; the Pandy test was 4 plus. On December 28, she had 3,300,000 red blood cells and 5,750 white blood cells; the hemoglobin was 61 per cent.

The postmortem findings were as follows: pneumococcus meningitis; pneumococcic septicemia; acute purulent otitis media, left; acute purulent labyrinthitis, left; recent myringotomy, left; cloudy swelling of the liver and the kidneys; acute hyperplasia of the spleen; hyperemia of the kidneys; recent surgical incision over the medial aspect of the left ankle; puncture wounds over the scalp and over the cervical and lumbar regions. Cultures of the heart and brain showed pneumococci.

Submitted May 12, 1939.

The Authors

● Dr. Toomey, Cleveland, Ohio, is a graduate of Western Reserve University Medical School, 1919; fellow, American Public Health Associa- 1919; physician-in-charge, divisision of contagious diseases, City Hospital; associate pediatrist (contagious diseases) University Hospitals; associate professor pediatrics (contagious diseases) Western Reserve University School of Medicine.

● Dr. Roach, Rocky River, Ohio, is a graduate of Harvard University Medical School; resident, division of contagious diseases, City Hospital and Department of Pediatrics, City and Babies and Children's Hospitals.

Case 3—W.A., an eighteen-month-old white male baby was admitted on December 29, 1938, and died on January 2, 1939. On December 22, he developed anorexia. Two days later, he began vomiting. The next day he had diarrhea and a diagnosis of "intestinal flu" was made. He had a small abscess in back of the left heel which drained thin pus. On December 28, six days after the onset of his illness, he became delirious and had convulsions.

On admission to the hospital the next day, he was acutely ill, toxic, dehydrated and drowsy. He had a stiff neck. There was some question as to whether pneumonia was present. The temperature ranged from 40°C. to 40.5°C. He was given 50 grains of sulfanilamide and 18 grams of sulfapyridine.

Laboratory: The number of cells in the spinal fluid of the first lumbar puncture was 320. A second lumbar puncture was made the same day; the spinal fluid was slightly cloudy and contained 443 cells. Either B. influenzae or pneumococci or both were seen in cultures made from the spinal fluid. On December 31, there were 408 polymorphonuclear cells in the spinal fluid. Several red blood counts and hemoglobin estimations were practically normal.

The postmortem examination showed acute suppurative leptomeningitis, both B. influenzae and pneumococcus (type undetermined) being isolated; Ascaris lumbricoides infestation; thrombosis of the superior sagittal sinus and chronic cervical lymphadenopathy.

Case 4—M.B., a 28-year-old Negro woman was admitted on March 14, 1939, and died on March

16, 1939. This patient had had two attacks of epileptiform seizures in 1938 and gave a history of having had "shots" in the arm and spinal taps. On March 10, she developed fever and a frontal headache. Later that day she had myalgia, vertigo and generalized headache. The next day, she vomited and became irrational. Two days later, she developed sores about the mouth. The next morning, March 14, she was admitted to the hospital. She weighed nearly 300 pounds and was three or four months pregnant. The uterus was three fingers above the symphysis pubis. She was semi-comatose and delirious. The temperature was 39.7° C. and the pulse rate 140; respirations were 48. There were herpes about the lips and signs of pneumonia of the right lower lobe.

On March 15, 120,000 units of combined type V and type VII antipneumococcus horse serum were injected intravenously. There was no reaction. Ten grams of sulfapyridine were given in divided doses, beginning on the second hospital day. The temperature did not come down and the patient died on the third hospital day.

Laboratory: On admission there were 324 cells in the spinal fluid; the Pandy test was 4 plus and no organisms were found. On March 15, 1939, there were 1100 cells in the spinal fluid, 84 per cent of which were polymorphonuclears; the Pandy test was 4 plus and the spinal fluid had received a total of 380 grains of ths drug. He was now toxic, irrational and cyanotic. Sulfapyridine was started. On January 4, 1939, he was given a transfusion and he seemed to improve. On January 7, he had a chill and became disoriented. On January 10, he had another chill and the temperature began to rise. On January 11, he became jaundiced. The next day, he was given another transfusion, but he gradually grew worse. Three days later, January 15, he was completely moribund. X-ray films of the skull showed no evidence of a fracture. The total amount of sulfapyridine given was 23 grams.

Even though this patient died, he showed signs of improvement as evidenced by the decreased cellular reaction in the spinal fluid.

The postmortem findings were: acute fibrinopurulent meningitis (pneumococcus type XVIII); fracture of the base of the skull (anterior and middle fossa); acute choroiditis; acute ependymitis; internal hydrocephalus; laceration of the cerebral cortex in the left superior parietal lobe; chronic paranasal sinusitis (sphenoid); cloudy swelling of the myocardium, the liver and the kidneys; acute hyperplasia of the spleen; dilatation of the heart, passive hyperemia of the lungs (severe), the liver and the spleen; thrombosis of the intralobar branches of the pulmonary artery; infarcts of the lower lobes of the lungs; thrombosis of the vena plexa vesicalis; recent

Laboratory—Spinal Fluid Findings:

Date	Appearance	Pressure	No. Cells	Polymorpho-nuclears	Mono-nuclears	Pandy Test	
12-27-38	Cloudy		11,200	100%		4+	Type XVIII
12-28-38	Cloudy		8,000	majority		4+	pneumococcus
1-2-39	Cloudy	30 mm.	38,000	90%		4+	
1-4-39	Clear	4 mm.	188	82%	18%	3+	
1-7-39	Cloudy	14 mm.	428	88%	12%	3+	
1-13-39	Cloudy	34 mm.	522	majority		4+	
1-14-39	Cloudy	26 mm.	440				

was loaded with type VII pneumococci. Type VII pneumococci were also found in the sputum. On March 16, there were 1300 cells, 80 per cent of which were polymorphonuclears; the Pandy test was 4 plus and there were numerous organisms. There was a slight decrease in the number of circulating red blood cells and in the hemoglobin.

Case 5—A.M., a 32-year-old white man was admitted on December 27, 1938, and died on January 15, 1939. This patient was well until December 24 when he was struck by an auto and received an injury to the right side of the forehead. He became unconscious and blood drained from his nose. The next day, he regained consciousness and was apparently well. The day following, he had fever and a headache; he was restless and later became irresponsive. On December 27, three days after the accident, he was brought to City Hospital. He was comatose and had athetoid movements. The pulse was full and strong, although arrhythmic.

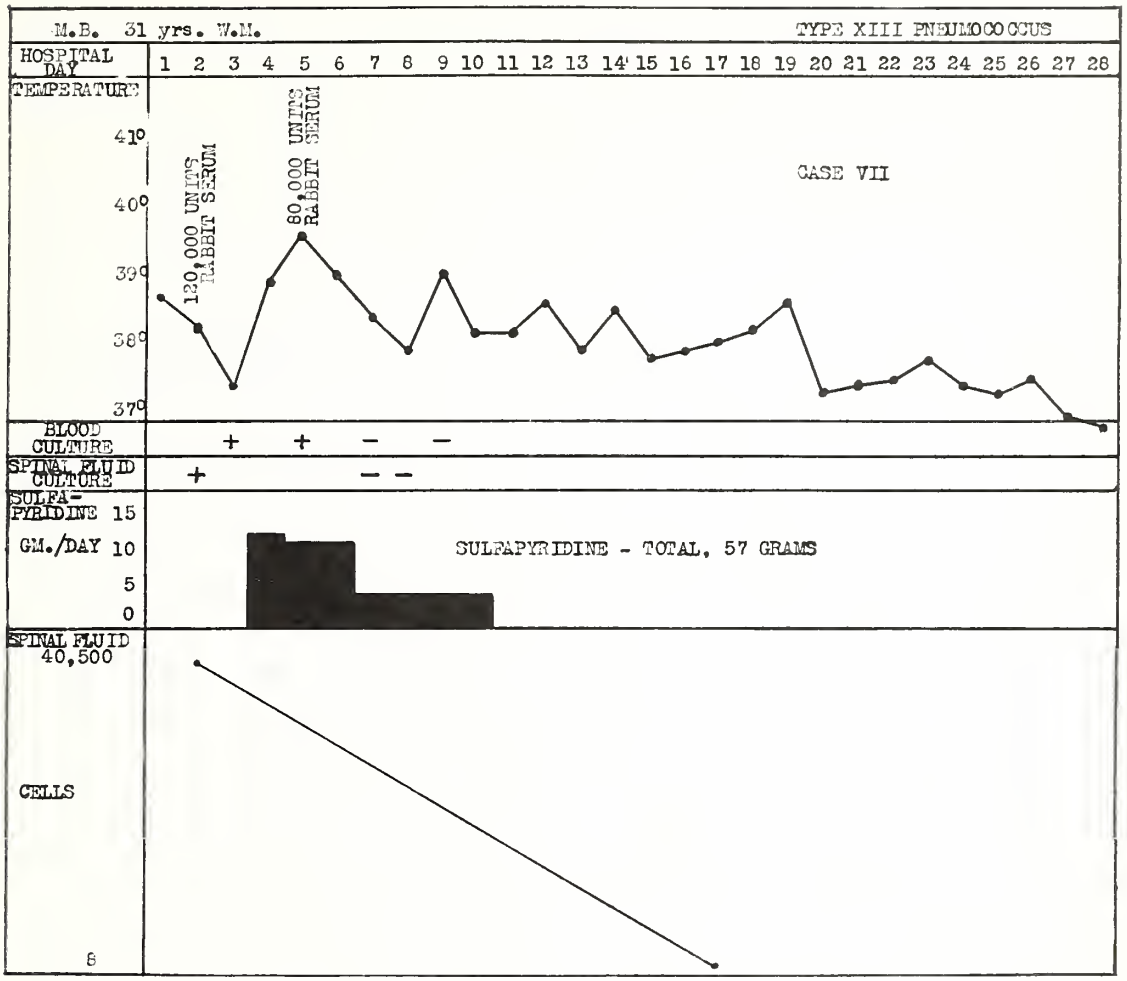
On December 27, he was given 60 grains of sulfanilamide every four hours. The next day, he developed a right facial palsy. He received 100,000 units of type XVIII anti-pneumococcus rabbit serum. On December 29, the day following, the sulfanilamide was discontinued after he

laceration of the scalp over the right frontal bone; postmortem perforation of the stomach at the cardia; adenoma of the thyroid. A culture made from the heart and from the base of the brain showed pneumococci; a culture from the sphenoid grew B. subtilis; a culture from the brain was negative. No organism could be found on a direct smear made from the brain.

Case 6—K.D., a 62-year-old white woman was admitted on January 10, 1939, and died on January 24, 1939. On January 9, she began to cough and developed pain in the chest accompanied by fever and chills.

On admission to the hospital, she was acutely ill, but responsive. She had arteriosclerotic heart disease, mitral insufficiency, generalized arteriosclerosis and early lobar pneumonia. On January 11, the Kernig sign was positive. She was treated with sulfapyridine from January 11 to January 20, receiving a total of 33.5 grams of the drug in divided doses.

Laboratory: The sputum on admission contained type XIV pneumococci. On January 11, there were 3,000 cells in the spinal fluid, most of which were polymorphonuclears. Pneumococci were present. The next day, there were 980 cells —all polymorphonuclears. Two days later, the



CASE No. 7

spinal fluid was xanthochromic and contained 530 cells, 70 per cent of which were polymorphonuclears. On the sixth hospital day, January 16, the spinal fluid was clear and contained only 10 cells, of which eight were mononuclears and two were polymorphonuclears. She showed a slight decrease in the total red blood cell count and in the amount of hemoglobin.

She recovered from the meningitis and pneumonia, but died on January 24, 1939, from causes as noted below.

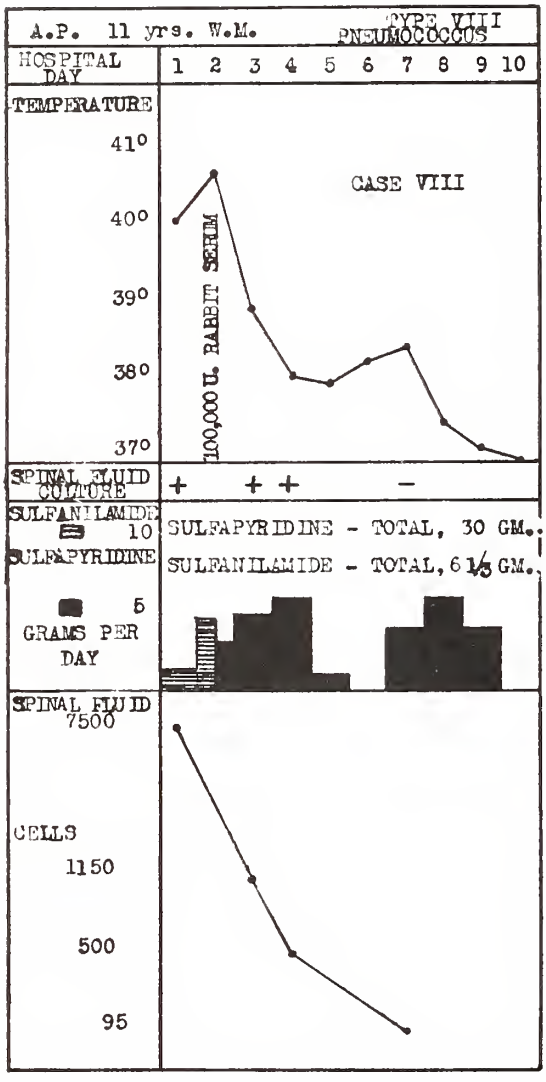
The postmortem findings were: type XIV pneumococcus pyemia; acute vegetative endocarditis of the aortic leaflet of the mitral valve (type XIV), septic embolus in the right common iliac artery with occlusion of the lumen; recent and remote septic infarcts of the spleen and the kidneys; chronic rheumatic mitral and aortic valvulitis; minimal bronchopneumonia; icterus; healed leptomeningitis. Postmortem cultures made from the pericardial sac, the left lateral ventricle of the brain and the brain itself all showed Staphylococcus aureus. Cultures from the heart valve showed type XIV pneumococcus.*

*This case was interesting from a pathological standpoint and the findings will be reported in detail by Doctors Luther Terry and E. E. Beard.

Case 7—M.B., a 31-year-old white man was admitted to Charity Hospital on January 10, 1939, and was discharged on February 19, 1939. On admission, he was stuporous and dyspnoeic. He had herpes about the lips and face, and he vomited repeatedly. The temperature was 39.8°C., the pulse rate 110 and respirations were 30 or above. The sputum contained type XIII pneumococcus.

He was given 120,000 units of specific type XIII antipneumococcus rabbit serum on January 11. That day he developed signs of meningitis. The spinal fluid contained 40,500 cells and many type XIII pneumococci. Although the temperature came down a little after the administration of the serum, he appeared worse, nevertheless. He became wildly disoriented and had to be restrained. The pulse became erratic. On January 12, the red blood count was 6,090,000. The clinical condition was not improved and a blood culture was positive for type XIII pneumococcus. On January 13, the temperature rose again. His condition had become most critical and the prognosis was considered hopeless. The peripheral pulse was irregular both as to volume and rate. Three grams of sulfapyridine were given immediately and 1 gram every two hours thereafter. On January 14, he was given 80,000 units of type

XIII anti-pneumococcus rabbit serum. The spinal fluid culture was positive on this day. The next day it was again positive. On January 16, the sixth day of treatment, the blood culture was negative and he was brighter mentally. The next day, the spinal fluid culture was negative. On January 18, the red blood cell count was 4,320,000. The day following he became mentally alert.

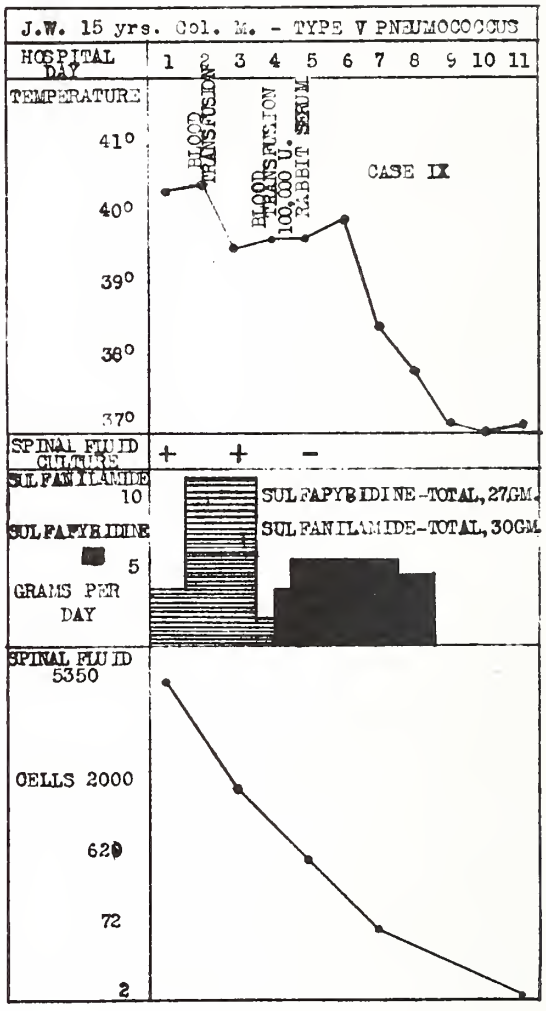


CASE No. 8

On January 26, the spinal fluid was again found to be entirely negative. Four days later, X-ray examination showed residual pulmonic consolidation shadows. The white blood cell count, although high, was not significant at any time. This patient made a complete recovery. In all, he received 57 grams of sulfapyridine.

Case 8—A.P., a 12-year-old white boy was admitted February 21, 1939, and was discharged March 27, 1939. He had a cold about the third or fourth of February. On February 17, he had an earache and he began to talk irrationally. The next day, he was quieter, although his ear was more painful and it began to discharge a small amount of pus. He also had a severe frontal headache and his parents said he acted "crazy". At 9 a.m., on February 19, he suddenly became worse and complained of severe headache, ringing in the ears and stiff neck. The same symptoms continued on the succeeding day and he vomited everything he ate. He gradually became worse. On February 21, he was referred to the hospital as a case of meningitis.

On admisson, he seemed stuporous and drowsy, although he could be easily aroused at times when he would answer questions accurately. He had all the typical signs of meningitis. The spinal fluid contained 7,500 cells under 30 mm. of pressure; 85 per cent of the cells were polymorphonuclears; the Pandy test was 4 plus. There were diplococci present which were identified as type V pneumococcus. On February 22, 100,000 units of specific rabbit serum were given. Two grams of sulfapyridine were given immediately on February 22, and 1 gram every three hours for eight doses and then 1 gram every



CASE No. 9

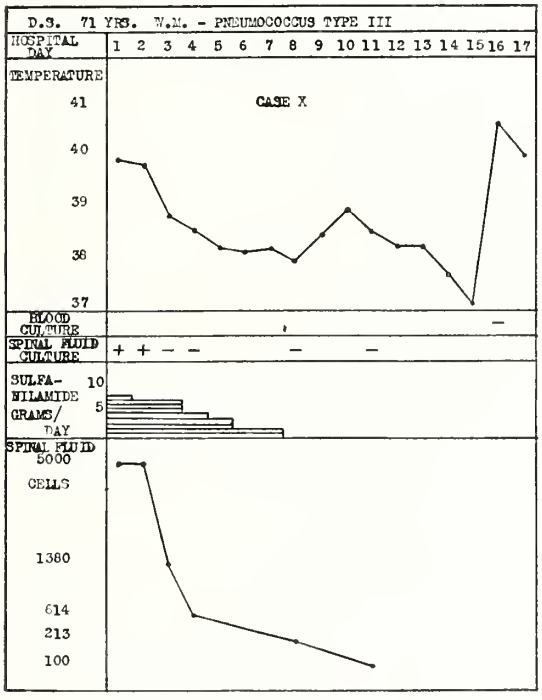
four hours for 12 doses. The use of this drug was resumed on February 27; 1 gram was given every four hours for 14 doses. A total of 34 grams was given.

Laboratory: On February 23, two days after

admission, there were 1,100 cells in the spinal fluid; the Pandy test was 2 plus and only one diplococcus was found. On February 24, there were 500 cells and only a few organisms. On February 27, there were 95 cells and clumps of what were thought to be dead organisms. No subcultures could be obtained from this. The temperature came down to normal on the eighth hospital day. He was discharged completely well.

Case 9—J.W., a 15-year-old Negro boy was admitted on March 10, 1939, and discharged on April 7, 1939. His illness started on March 7, with a head cold. Two days later, he had a frontal headache. The day following he had anorexia and it was noticed that his urine was red. He had a stiff neck and a diagnosis of meningitis was made.

On admission, he was somnolent. The deep reflexes were absent. He had occasional clonic jerking and athetoid-like movements of the legs and arms. He had had sickle cell anemia for several years. Examination of the blood showed 1,900,000 red blood cells; he was jaundiced and had an enlarged liver. Sulfanilamide was started, 60 grains being given at once and 120 grains within the next 24 hours. On March 11, 1939, he was given a transfusion of 300 cc. of citrated blood. The temperature was 40.5°C. and did not come down; nor was there any clinical improvement. One hundred thousand units of specific rabbit serum were injected. Sulfapyridine was started by mouth—2 grams at once and 1 gram every four to six hours thereafter. The temperature



CASE No. 10

dropped to normal within two days; he regained consciousness and the neck was less stiff. On March 20, he had convulsions on the right side.

Laboratory: On March 10, the spinal fluid contained gram-positive diplococci and 5,350 cells, 86 per cent of which were polymorphonuclears. These were identified as type V pneumococcus on March 13, three days after admission. On March 14, there were 620 cells, but no organisms. On March 16, the spinal fluid was clear and contained 72 cells, but no organisms.

This boy had marked sickling of the red cells at all times, severe deep jaundice, bile in all the bodily fluids and marked enlargement of the spleen and liver. He made a complete recovery from the meningitis.

Case 10—D.S., a 71-year-old white male was admitted to the hospital on July 24, 1938, and died on August 10, 1938.

On July 10, he had a cough and bronchitis. Four days later he developed fever and went to bed. On July 18, the right ear drum became inflamed. The next day he had a headache and high fever. He became irrational on July 23.

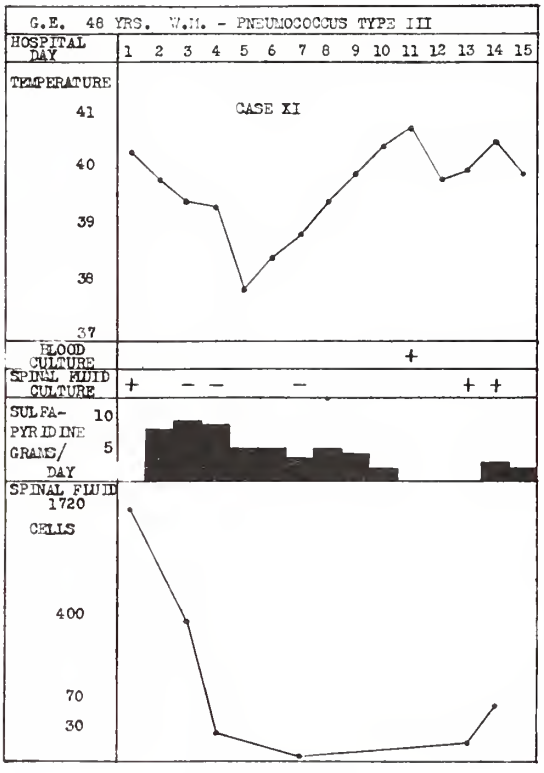
On admission his temperature was 40°C. He was stuporous and restless and he had all the signs of meningitis. The right ear drum was bulging and was incised. The spinal fluid was cloudy and contained 5,000 polymorphonuclear cells and type III pneumococcus organisms; the Pandy test was 4 plus. Sulfanilamide was given as follows: 20 grains every four hours for six doses; 15 grains (combined with sodium bicarbonate) every four hours for 14 doses; smaller doses up to August 30. In all, he received 510 grains (34 grams) of sulfanilamide. The temperature began to fall the day after admission and he became more rational. On July 27, the spinal fluid contained only 614 cells; the patient was perfectly rational. One hundred thousand units of type III pneumococcus antiserum were given. On July 27, he was given a transfusion of 250 cc. of blood. He felt very well, though he had slight urinary retention. On rectal examination a hypertrophied prostate was found. On August 3, the spinal fluid was clear and contained only 102 cells. The temperature came down to normal on August 7. The next day, August 8, eight days after the last dose of sulfanilamide, there was acute urinary retention and the temperature rose to 40.5°C. Catheterization showed bloody urine. The creatinine was 3.3 and the blood urea 72.8. Cystoscopy on August 9 showed bloody urine. He had a cystitis and the median lobe of the prostate was enlarged. The catheterized specimens showed clumps of white blood cells and red blood cells. A diagnosis of acute ascending infection of the genito-urinary tract was made. B. coli was grown from the urine specimen obtained from the left ureter. He developed bronchopneumonia and an erysipeloid area over the coccyx. Sulfanilamide was not given again because of possible kidney complication and retention. He died on August 10, 1938.

This case represents a true recovery from type III pneumococcus meningitis, although the patient succumbed to the complications incidental to hypertrophy of the prostate and an ascending secondary infection of the genito-urinary tract.

Case 11—G.E., A 48-year-old white male was admitted to the hospital on April 8, 1939, and died on April 22, 1939.

For years this patient had had pulmonary tuberculosis with a chronic productive purulent cough. On March 27, he caught a cold and developed malaise, chills, fever and headache. The next day, his cough was worse, and he had pain in the chest. His symptoms gradually grew more acute until April 7, when he became

nauseated, started to vomit and felt extremely weak. In the forenoon of April 8, he developed a severe headache. He was admitted to the hospital that evening with a temperature of 40.3°C., pulse of 108, and a respiratory rate of 42. He was extremely toxic and had classical signs of meningitis. The first spinal fluid obtained was cloudy, under 24 mm. of mercury pressure and contained 1,720 cells, 84 per cent of which were polymorphonuclears; the Pandy test was 4 plus and there were gram positive

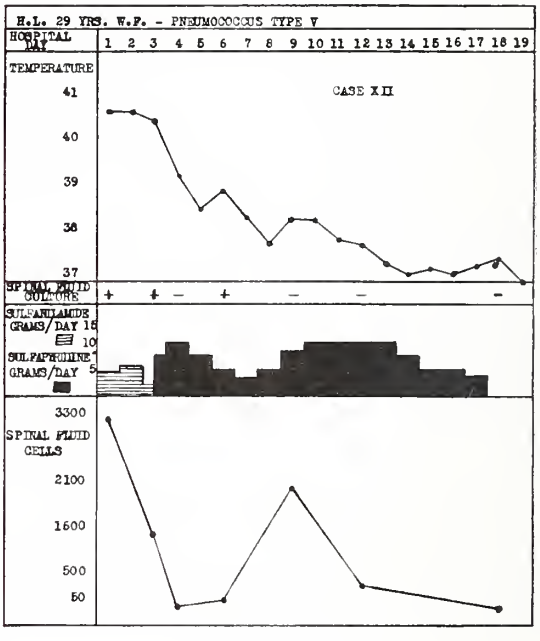


CASE No. 11

diplococci present, too few to type. One cc. of the spinal fluid was injected intraperitoneally into a mouse which died within 24 hours and a pure culture of type III pneumococcus was recovered. He was given 2 grams of sulfapyridine at once, and 1 gram approximately every four hours for 12 hours and then at odd intervals thereafter. In all 57 grams of the drug were given. His temperature became normal on the fifth hospital day, but returned to its previous high level the next day. X-ray examination of the lungs revealed pulmonary tuberculosis. On April 10, the cell count in the spinal fluid was 400; the next day it was only 30 and the spinal fluid was sterile; six days after admission it was clear and sterile; the test reactions were negative and there were only five cells. On the tenth day, he developed a harsh systolic blow and signs of diffuse pneumonia. On the thirteenth day, there were 20 cells in the spinal fluid and a 4 plus reaction to the Pandy test. On the fourteenth day, there were 70 cells, 40 per cent of which were polymorphonuclears; the Pandy test was 4 plus and pneumococci were cultured from the fluid. He lapsed into coma that day and died on the fifteenth hospital day.

The postmortem findings were: subacute suppurative meningoencephalitis; acute vegetative mural endocarditis, organizing, left ventricle; subacute focal myocarditis with multiple abscesses; multiple septic infarcts of the spleen and the kidneys, recent and remote; acute thrombophlebitis and thromboarteritis of the branches of the mesenteric vessels; acute hyperplasia of the spleen; emphysema of the lungs, very severe; bronchiectasis; acute bronchitis and bronchiolitis; bronchopneumonia of the right lower lobe; cloudy swelling of the organs; chronic fibroid tuberculosis, bilateral, probably obsolete; generalized arteriosclerosis, moderate; fibrous pleural adhesions, bilateral.

Case 12—H.L., a 29-year-old white female was admitted to the hospital on March 15, 1939. Two years previously she had had a bilateral simple mastoidectomy. Six weeks prior to admission she had a second mastoidectomy on the left side. She returned home after the last operation, but never recovered completely, having occasional headaches. These continued until March 12 when they became intense. The next day she began vomiting and she became stuporous and irrational. She was admitted to another hospital where epidemic meningitis was diagnosed and she was transferred to the Division of Contagious Diseases, City Hospital. On admission, she was stuporous and had signs of meningitis. The temperature was 39.7°C.; the pulse varied from 70 to 180 and the respirations from 20 to 35. The temperature rose to 41.2°C. after the intravenous injection of meningitis antitoxin. Two hundred and twenty grains (14 2/3 grams) of sulfanilamide were given during the first two days, but there was no change in the patient's condition. The first lumbar puncture revealed cloudy



CASE No. 12

spinal fluid which contained 3,300 cells, 98 per cent of which were polymorphonuclears. On the third hospital day, type V pneumococci were identified on culture and sulfapyridine was started, 30 grams of which were given in divided doses during the next few days. Four days later,

there were only 54 cells in the spinal fluid; the patient was oriented and the temperature was down to 37.5°C.

COMMENT

Six of the 12 cases of pneumococcus meningitis described in this report recovered from their meningitis. Case 6 and 10, however, died later from other causes. Case 5 and 11 were improved, although they died subsequently—one from the fracture of the skull and the other from the pneumococcic infection. Case 1 was nearly moribund when treatment was started. In case 3, the meningitis was complicated by a mixed infection, in case 4 by pregnancy, in case 5 by a fractured skull, in case 9 by sickle cell anemia and in case 10 by a prostatic disease. Cases 2 (postmortem), 6 (postmortem), and 7 had positive blood cultures. Of these, case 2 had no benefit from treatment and patients 6 and 7 were cured of their meningitis, the latter making a complete recovery.

One infection of the meninges followed an accident; five, pneumonia; four, ear infections and two were of questionable origin.

SUMMARY

Recently, Hewell and Mitchell[1] reviewed the literature and described four cases of pneumococcus meningitis which recovered following the use of sulfanilamide or related products. To their list of recoveries, we add four more, although two additional cases which recovered from their meningitis and died from other complications, could also be included. Four of the six patients received specific antiserum, but it is felt from observation of the clinical symptoms and from previous experience in treating these cases that the serum alone would not have saved them. It may be that combinations of serum and sulfanilamide or serum and sulfapyridine give better results. Of the two chemotherapeutic agents, sulfapyridine seems to be the drug of choice in pneumococcic infections of the meninges.

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Psychosis Due to Sulfanilamide

Various toxic reactions to sulfanilamide have been described and many are now recognized. These include cyanosis, fever, malaise, acidosis, renal irritation, jaundice, hemolytic anemia, sulfhemoglobinemia, methemoglobinemia, agranulocytic agina, dermatitis including purpuric and scarlatiniform eruptions, exfoliative dermatitis, toxic dermatosis, photosensitization of the skin, and an inhibitory action on spermatogenesis.

Toxic effects upon the nervous system have been less widely noted. Bucy[1] reported toxic optic neuritis due to sulfanilamide. Wigton and Johnson[2] described peripheral neuritis following sulfanilyl sulfanilamide. Ornsteen and Furst[3] described peripheral neuritis following sulfanilamide.

In 1938, Hogan and McNamara[4] reported a case of psychosis characterized by delirium, delusions and hallucinations, following sulfanilamide. Silver and Elliott,[5] in 1939 in a review of toxic reactions, listed one case of psychosis. However these reactions have been so infrequent that Long, Bliss, and Feinstone[6] in reviewing the toxic reactions failed to mention psychosis.

CASE REPORT

The patient was a 37 year old white male who became amnesic and was found by the police. When seen, he had complete loss of memory for past events. He did not know his name, address, relatives or the date. However, he could name objects, answer questions fairly well and showed some ability to reason. On physical examination he showed a mild macular rash over the face. There was no rash on the hands. His pupils were fixed. The Romberg was postive. The tendon reflexes were irregular. There was a bilateral suggestive Babinski sign.

After 72 hours, the neurological examination was unchanged, and he still could not identify himself or his family. However, his memory was good for events dating from his hospital admission.

His employer and members of his family gave a history of progressive mental deterioration over a period of three weeks time. The deterioration was characterized by violent fits of temper, melancholia and mental confusion. His condition was such that he had been moved to a less responsible position.

After 96 hours, he was mentally clear and the neurological examination was normal. He then gave the history of voluntarily taking sulfanilamide. He was not clear on the dosage, but treatment started three weeks prior to the onset of amnesia, and it is probable that the dose ranged from 90 to 150 gr. daily, at least for the first week.—Robert E. S. Young, M.D., Columbus, Ohio.

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The Negro and the City

Cities are relatively much more destructive to Negroes than to whites in their effects on mortality from tuberculosis and acute respiratory infections. Under present conditions mortality from respiratory diseases acts as a powerful check to the natural increase of the Negro in northern latitudes.—Holmes, S. J., Amer. Jour. Med. Science, 1938, 195.

The Effect of a Previously Performed Thyroid Operation On Involutional Psychosis

CARL W. SAWYER, M.D.

INVOLUTIONAL psychoses are, under the most favorable circumstances, difficult and unsatisfactory disorders to treat. When complicated by other conditions and diseases they are much more intractable and less frequently recoverable.

In order to determine some of the complications which increase the hazards of treatment in this disorder and which mitigate against improvement, a series of investigations was instituted some time previously at our Sanatorium. One of these studies is reported here.

The question in this instance under discussion was: Do previously performed operations on the thyroid gland bear any relationship to the final outcome in involutional psychoses? If so, what relationship?

The histories of 50 cases of involutional psychosis upon whom no thyroid operations had been performed were compared with the histories of 10 cases upon whom thyroid operations had been performed.

Summarized and stated briefly the 10 cases in which thyroid operations had been performed were as follows:

CASE REPORTS

1. Female, age 45. Seen first in 1916. Ten months previous to admittance had four-fifths of the thyroid removed. Following this she improved for three months then became nervous, lost weight and developed suicidal ideas. Diagnosis when first seen one year following operation, "involutional psychosis". One hundred and thirty-one days later patient was improved and returned to her home. One month later was readmitted to sanatorium. Was nervous and worried and was suffering from an active gonorrhea. This latter condition, under treatment, subsided. Patient made some improvement in the psychosis and was permitted to make various trial trips home, but was unable to meet situations. She suicided three months following the recurrence of her original psychosis.

2. Female, age 30. Seen first in 1922. Was nervous and worried and depressed. Five years previously had had part of the thyroid removed. Diagnosis upon admittance the first time was "psychosis with disease of the endocrine glands (thyroid)". She recovered in 134 days from this condition. Her health then, for 15 years, remained good. During this time she engaged in an active life and regular work and made a name for herself in her profession. In 1937, she was readmitted, 15 years following the original admittance and 20 years following the thyroid operation. Diagnosis at this time was "involutional psychosis, melancholia type". After 100 days of treatment she showed sufficient improvement to be permitted to return home. No reports have been received as to subsequent events.

The Author

● Dr. Sawyer, Marion, Ohio, is a graduate of Rush Medical College, 1906; fellow American Psychiatric Association; American College of Physicians; member American Therapeutic Society; Association for Research in Nervous and Mental Diseases; Association for Study of Internal Secretions; Ohio Academy of Science; director and chief of psychiatric section, Sawyer Sanatorium.

3. Female, age 45. Seen first in 1926. Six years previously, goiter removed. Diagnosis on admittance "involutional psychosis". Returned home 128 days later slightly improved. No further reports.

4. Female, age 42. Seen first 1928. Six years previously had goiter removed. Diagnosis upon admittance "involutional psychosis". In 110 days returned home very slightly improved, cooperated somewhat, stubborn, irritable and depressed. Within short time worse. Placed in State Hospital. No improvement or recovery.

5. Female, age 42. Seen first in 1930. One and one-half years preceding admittance a thyroid operation had been performed. Details could not be obtained. Diagnosis upon admittance "involutional psychosis, melancholia type". Ninety-five days later returned home recovered. Four weeks later reported herself slightly nervous. Readmitted in 1935, five years following the original admittance. She complained then of depression and a pain in her heel. She was taking morphine which she was securing from several different sources at the same time. She returned home 57 days later improved in all ways especially from the depression and psychosis. One year later seemed to be normal.

6. Male, age 54. Seen first in 1932. Six years previously had had a thyroid operation. Diagnosis upon admittance "involutional psychosis, melancholia". Returned home 143 days later improved. He returned to his office and executive work, but was only able to continue at it for a few weeks. Four months later his condition was so disturbed that he was placed in another hospital. There was no improvement and he was rereceived by us in November of 1933. The diagnosis was again "involutional psychosis, agitated melancholia type". He remained under treatment for 1,585 days and was unimproved. Then was transferred to a state hospital where he still remains unrecovered.

7. Female, age 50. Seen first in 1936. She had had a double ligation of the thyroid several years previously. Diagnosis upon admittance, "involutional psychosis, melancholia", with definite suicidal tendencies she having slashed her throat

a few days previously. She remained under treatment 213 days then returned home recovered. Two and one-half years later reports herself in good health, mentally and physically.

8. Female, age 40. Seen first in 1938. Diagnosis "involutional psychosis", with decided menopausal syndrome symptoms added to the psychosis. Six months previously had had a ligation and partial removal of the thyroid. No beneficial results so far as the depression which she was suffering from at the time, was concerned. One hundred and twenty-one days after being under treatment with us she returned home improved, but still complaining of many vague distresses. Two months later feeling better and enjoying life somewhat, still unrecovered.

9. Female, age 52. First seen in 1938. Goiter removed four years previously. Diagnosis upon admittance to us "involutional psychosis, melancholia". Under treatment 56 days, slightly improved but still confused and worried. Several weeks later only slightly improved.

10. Female, age 39. Seen first in June, 1938. Seven months previously goiter removed. Diagnosis upon admittance "involutional psychosis". Remained under treatment 143 days and was unimproved. Returned to her home and five months later seemed to be somewhat better, although still unable to carry on her usual duties.

SUMMARY

1. The ratio of males to females in this series of 60 cases is 25 per cent to 75 per cent. This bears out thyroid operations in general where females coming to operation are predominant.

2. The average age of the non-thyroid operation group was higher than that of the thyroid group: 50 years to 45 years.

3. The average age of the males was greater for both groups 57 years to 48 years in the non-thyroid group and 54 years to 44 years in the thyroid group. This is in keeping with the appearance of the involutional state in all persons, the time of appearance being later in males than females.

4. Time necessary for treatment with the operated group was greater than the time with the non-operated group: 124 days to 108 days.

5. No case in either group died in a normal fashion and no case died from any cause during the first period that they were under treatment.

6. The unimproved rate was two and one-half times greater in the operated cases than in the non-operated; 30 per cent to 12 per cent.

7. The improved percentage was about the same for both operated and non-operated cases with the non-operated cases slightly in advance; 50 per cent operated, 54 per cent non-operated.

8. Recoveries from first attacks and at first time of treatment was 14 per cent better with the non-operated cases; 34 per cent recovered in the non-operated group, 20 per cent in the operated group. It is interesting to note that one of the cases making a good recovery (case No. 7 in the operated group) had had a double ligation of the thyroid, only, with no removal of tissue.

9. Of the total number of cases benefited by treatment 18 per cent more of the unoperated cases were helped than of the operated; 88 per cent to 70 per cent.

10. Of the cases operated upon only 10 per cent showed good late results while of the non-operated 55 per cent had good ultimate results. Since many of these cases have passed out of the involutional period at the present time it is presumed that there will be no recurrences.

11. Of the operated cases 40 per cent had recurrences of some type of mental trouble within a short time and only 26 per cent of the non-operated cases had recurrences.

12. Of the non-operated cases 32 per cent recovered from the recurrences and only 20 per cent of the operated cases.

13. Eventually (usually within two years following treatment) 6 per cent of the non-operated cases and 10 per cent of the operated cases suicided.

DEDUCTIONS

From this study it appears that the effect of previously performed thyroid operations on involutional psychoses are as follows:

(1) To hasten the onset of the disorder; (2) to lengthen the time needed for treatment; (3) to diminish immediate beneficial results; (4) to increase the recurrence rate, and (5) to retard final recovery.

CONCLUSION

While no hard and fast rule can be laid down it is well to remember, in working out the prognosis of a case of involutional psychosis, that while the general outcome of involutional psychosis is good, a guarded prognosis should be made in all cases of this disorder, where a previous operation upon the thyroid gland has been performed.

Ringworm of the Feet

Radiotherapy has no place in the prophylactic regime. Solutions most commonly used in prophylactic baths are: (1) sodium thiosulphate (2) zinc chloride, (3) copper sulphate, (4) Blank's solution, (5) potassium permanganate. Sterilization of clothes is next important. Since positive cultures have been obtained from shoes, reinfection should be avoided by this means. Formaldehyde fumigation can be applied by the box method or by sponging within the shoes. Care should be taken that formaldehyde dermatitis will not result from inadequately dried shoes. It is claimed that dry cleaning solvents are only slightly disinfectant in action. Ten minutes, however, at 75° C. completely annihilates fungus embedded in skin scales or in cultures grown on fabrics. Socks and stockings should be boiled in water for at least 20 minutes and changed frequently.—O. J. Blende, M.D., Seattle, Wash. Northwest Med., Vol. 38, No. 7, July, 1939.

"Port Wine" Mark (Nevus Flammeus) With Malignant Degeneration

IRVING L. SCHONBERG, M.D.

IN 1907 Besnier and Doyen reported a case of venous angioma of the skin showing beginning malignancy. Gumbert was of the opinion that a certain number of angiomata underwent malignant degeneration and believed that all forms should be removed in earliest childhood. The following is the report of a case of "port wine" mark (nevus flammeus) present at birth which later underwent verrucous proliferation followed by malignant degeneration.

The Author

● Dr. Schonberg, Cleveland, Ohio, is a graduate of Ohio State University College of Medicine, 1931; diplomate, American Board of Dermatology and Syphilology; fellow American Academy of Dermatology and Syphilology; associate clinician in charge outpatient department, Mount Sinai Hospital, Cleveland.

CASE REPORT

Past History: Mrs. R., white, aged 51, was born with an extensive "port wine" nevus on the right side of her face. At 12 years of age there developed upon the lesion numerous "warty" growths. The warty growths continued to increase in number and size until they superimposed a large area of the original nevus. Eight years ago several of the "warts" became crusted and sore. Following irradiation the areas healed. Two months prior to her first visit which was on October 12, 1937, she developed an ulcer in the center of the right cheek. This had not shown any tendency toward spontaneous healing and had been increasing in size.

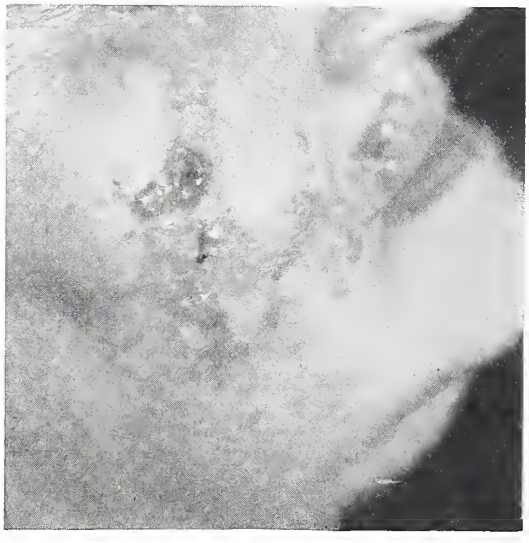
Examination: Patient presents over the right cheek extending up under the right eye, the upper lip, the middle of the face from the forehead to the tip of the nose a violaceous patch superimposed by numerous conglomerate nodules varying in size from a pin head to a split pea. On the forehead and nose the lesions are the color of the surrounding skin. On the right side of the upper lip there is a similar linear lesion composed of erythematous pea sized nodules. On the right cheek over the zygoma there is an ulcer about the size of a dime. The border is slightly raised and infiltrated and presents a "rolled effect". The center is covered with a bloody crust which upon removal presented a shallow atrophic crater. Adjacent to this ulcer there are two pea sized yellowish waxy nodules.

Treatment: The ulcerated area was excised and the nodules were removed by electrodesiccation.

1. Pathologic findings: The ulcerated area is composed of relatively large masses of cells which are fairly sharply limited at the periphery by large columnar cells with hyperchromatic nuclei. At the base there is a small amount of connective tissue present, arranged in relatively thick interlacing bundles between islands of tumor tissue. Only a small amount of corium is present between the tumor tissue and the overlying epithelium. In some places the tumor tissue is continuous with the basal layers of the epithelium. The epithelium is slightly flattened but shows slight thickening of the granular layer.

Pathologic Diagnosis: Basal cell epithelioma of the skin.

2. Pathologic findings: Microsopically the nodule presented masses of tumor tissue which appeared to be contained within large cavernous vessel walls. In places the tumor masses are adherent to the vessel wall. The thick fibrous walls separating the tumor masses here are suggestive of those of a cavernous hemangioma.



In the regional connective tissue there are a number of scattered tumor cells, and a few scattered lymphocytes. Otherwise nothing additional.

Diagnosis: Hemangioendotheliomata arising on basis of hemangioma.

SUMMARY

A case of "port wine" nevus which developed verrucous elements followed by malignant degeneration is presented. The epithelioma was excised and the verrucous elements were removed by electrodesiccation. The ulcerated area presented a basal cell epithelioma on microscopic examination; the nodules proved to be hemangioendotheliomata arising on basis of hemangioma.

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Benzedrine Inhalations in Asthma

MORRIS KALMON, M.D.

RECENTLY, Swineford reported favorably on the use of benzedrine by intrapulmonary inhalation. He suggested a six-inch glass tube, one cm. in diameter, loosely packed with surgical gauze, and saturated with 0.50 cc. of pure benzedrine base.

Accordingly, a supply of the pure benzedrine base was obtained from the same source; but instead of the glass tube mentioned above, a supply of blank inhalers was obtained, which contained a one and one-half inch length of cotton roll. These were then saturated with 0.50 cc. of pure benzedrine base.

The procedure which was outlined by Swineford and followed in these cases was as follows: Patients were instructed to exhale completely, hold the breath, close the nose with the fingers of one hand, insert the tube in the mouth almost to the uvula and close the lips firmly around the tube. They were then told to inhale as deeply as possible. This procedure was then repeated at arbitrary intervals of from 40 to 60 seconds, for from six to ten inhalations.

No experiments were carried out to determine increased vital capacities, nor were bronchoscopic inhalations carried out, as we were interested only in clinical relief to the asthmatics at the time of their attacks.

Ten patients were selected and were given a benzedrine inhaler to carry with them. Each patient was given explicit instructions in the use of the inhaler at the time he visited the office and was asked to go through the procedure while in the office to be sure that the patient performed this procedure properly.

The total number of attacks treated in this way was 52; of these 22 were mild and 30 moderately severe to severe attacks.

In none of the moderately severe or severe attacks was a satisfactory relief obtained.

Case I—One patient who came into the office with a moderately severe attack was offered an inhaler and having been instructed in its use, proceeded with the inhalations. The first inhalation produced such a violent attack of coughing, that adrenalin chloride 1:100, which ordinarily relieved his attack when used in a nebulizer failed to relieve him and it was necessary to resort to adrenalin chloride 1:1000 hypodermically in order to quiet this patient. He subsequently refused to even try it again, preferring to use the nebulizer only.

Cases II and III—Two other patients with moderately severe attacks stated at the first trial that they thought they had some relief, but on subsequent trials relief was not as complete as when adrenalin chloride 1:100 was used in a nebulizer.

Cases IV to IX inclusive—These patients were given tubes at their first visit to us and instructed in their use. None of these patients had severe attacks at the time that they were first seen; therefore it was felt that if this type of therapy was to prove satisfactory, no adrenalin nebulizer would be needed. All of these patients stated that there was a moderate amount of relief when tried the first time or two, especially with the very mild attacks, but if the attacks occurred with any increased severity, then the relief obtained was only partially satisfactory and these inhalers were soon voluntarily discarded by the patients themselves, stating that they did not think that the relief obtained was complete enough, and that they preferred other medications given them.

Case X—Of all cases, this one proved most satisfactory in so far as results were concerned. This patient had attacks which were mild in character, and which he had been in the custom of alleviating with asthmadors. He stated that these cigarettes would give him sufficient but not complete relief to enable him to continue with his work. When he used the inhaler he noticed that he was able to reduce the number of cigarettes that he had found necessary to use, and that the use of both, i.e., inhaler followed by an asthmador would give more complete relief, than the use of either alone. In this case, only, did auscultatory symptoms of asthma completely disappear.

As to side effects, cough was noted by all patients, following inhalation, although this was not troublesome or severe, except as mentioned in Case I.

Four complained of bad taste following inhalations.

Sleeplessness was avoided by cautioning the patients not to use the inhaler for at least two hours prior to retiring. In Case X this precaution was disregarded one evening and the patient stated that he was unable to fall asleep for several hours following its use. Burned throat was not noticed in any of the patients. Increase of vital capacity can be attested to by the fact that these patients stated that they could feel the drug lower down in the chest with each successive inhalation.

The life of the inhaler varies with the amount

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The Author

● Dr. Kalmon, Akron, Ohio, is a graduate of Ohio State University, 1931; member Cleveland Allergy Society.

of use that is made of it—but seven to ten days was the average duration of its effectiveness—at the end of which time the inhaler was charged again with another 0.50 cc. of benzedrine base.

The only advantage which can be claimed for this type of inhaler is the fact that it can be conveniently carried in a purse or in a vest pocket, and possibly does not excite as much comment when used in public places. Another possible advantage is that the cost would probably be less than that of adrenalin chloride 1:100.

Disadvantages are (1) the lack of effectiveness of this type of inhaler as compared to that of adrenalin chloride 1:100; (2) the disagreeable odor of the benzedrine base, itself, when the caps are removed from the inhaler.

It is our intention, at a later date, to try a combination of both the pure benzedrine base and adrenalin chloride 1:100 in a nebulizer, with the view in mind that with the more rapid increase in vital capacity by the use of benzedrine, a better effect may be obtained from the adrenalin.

SUMMARY

Recently, Swineford reported favorably on the use of benzedrine for intrapulmonary inhalations in asthma, in the treatment of a small series of patients (17) with favorable results in 12 of these patients.

Our experience, though limited to a smaller series of patients, does not seem to bear out the statements of Swineford concerning the amount as an inhalant, except possibly in very mild at- of relief obtainable by the use of benzedrine base tacks.

The effects of benzedrine inhalant are in no way comparable to that of adrenalin chloride 1:100, and the effect of the two combined was no better than the use of adrenalin chloride 1:100 alone.

The vital capacity is increased as noted by the patients' statements.

No contra-indications to the use of benzedrine were noted.

Responses to this drug as used are described purely on a subjective basis. No objective or instrumental studies were made.

Further study is required to establish a definite place for this type of medication in the armamentarium of drugs now in use in the treatment of asthma.

707 Second National Bldg.

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The wisest psychology will never replace quinine and mercury in the cure of certain diseases, nor can it obviate the necessity of operative procedure for a perforated appendix.—C. F. Martin.

Identification and Handling of the Allergic Nose

In medical treatment, one has recourse to three classes of preparations in particular: endocrines, sympathin, and stimulants to the sympathetic system. Among endocrines, thyroid has proved of greatest help so far. Tolerance for this drug, in those with severe allergy, is often high. In its use we try to bring the dose gradually up to the point of tolerance, as shown by increase of pulse rate and restlessness. Occasionally a patient will develop some swelling of ankles before other symptoms appear, upon which thyroid had best be reduced and chemical stimulants of the sympathetic system resorted to.

Among these benzedrine (beta-amino-propylbenzene) promised much, and is decidedly useful at times. It appears to possess a faculty of augmenting that phase of thyroid action desired. It is tolerated much better by the parasympathicoronic or allergic persons than by others. However, the drug must be used with caution even there.

Use of benzedrine internally is more satisfactory as a rule than by any such avenue as inhalation, but the patient should be carefully observed when starting its use, and dosage must be regulated according to individual responses.

With both thyroid and benzedrine, we begin at small dosage and increase to the point of desired effect. Of benzedrine sulphate five milligrams are given before a patient arises in the morning. If more is needed, one dose is given in the early afternoon. Then both may be increased in size if necessary. The benzedrine inhaler is a boon to many a patient in whose problem nasal stuffiness constitutes a prominent and troublesome feature. It appears to act both locally and generally.

Sympathin, which has not yet, so far as we know, been chemically identified, is in our work represented by histidine. This substance appears to fit well into the picture, so far as its clinical effects are concerned. Histidine is also interesting in the response it often arouses. Violent asthmatic seizures have been relieved by it in a few minutes, when repeated injections of adrenalin chloride had failed to show any appreciable effect. It is given as four percent solution of histidine monohydrochloride in 5 cc. doses, subcutaneously or intramuscularly. Frequency of administration depends upon the individual need. We have given it daily, which appears to be more than even the most violent case requires. Usually two or three does each week suffice. It is given less often, and finally discontinued as symptoms abate—to be resumed if needed. Often mild cases will not require its use.

Dilute hydrochloric acid by mouth with meals is valuable in many patients.—L. Weston Oak, M.D. and Wilmer L. Allen, M.D., Provo, Utah; Jr. Kansas Med. Society, Vol. XL, No. 7, July, 1939.

Activities and Program of the State Department of Health

R. H. MARKWITH, M.D.

THE activities of the State Department of Health have been increasing each year, since the Social Security program became effective in February of 1936.

Additional funds have been furnished for public health service in Ohio by Federal grants that have been provided by the Social Security Act. These Federal funds have not been granted to replace state or local public health funds, but to stimulate a greater interest in public health.

Ohio has 88 County Health Districts and 110 City Health Districts, making a total of 198 Health Districts. Except in Charter Cities, each of these Health Districts have a Board of Health, and 89 of these Health Districts have a full time Health Commissioner. The local Board of Health is granted power to make regulations and have supervision of food, milk, sanitation, communicable disease control, and local public health problems.

The State Department of Health in addition to being responsible for public water supplies and sewage disposal plants, plumbing inspection, laboratory service, licensing of maternity hospitals, industrial hygiene, vital statistics, educational programs, control of epidemics, and emergency public health problems, is charged with the allocation of Social Security Funds in accordance with the provision of the Act. The State Department of Health activities are thus to a great extent, administrative, educational, and advisory.

A number of different types of health activities are provided by the State Department of Health:

A trachoma survey has been made in southern Ohio. Local physicians have been paid a fee for the medical care of indigent children. Further studies of the trachoma problem will be made.

A maternal nursing service is being provided to several counties.

An educational Dental Hygiene program has been provided for practically every county of the State.

Refresher courses have been provided for physicians in maternal and child hygiene subjects, through the cooperation of the state and local medical societies.

Refresher courses have also been provided for dentists through the cooperation of dental societies.

Assistance has been given the Ohio Hospital Obstetrical Society in their study of the cause of maternal deaths.

Toxoid and vaccine points have been furnished for the immunization of indigent children in the smaller county health districts.

Speakers and exhibits have been furnished to many health districts.

The laboratory of the State Department of Health has rendered a valuable service to the physicians of Ohio in examining numerous specimens from supposedly low income patients.

Post graduate public health training has been provided at the various universities for physicians, nurses, engineers, sanitarians, and statisticians, and a number of laboratory technicians have been trained in pneumonia typing.

A nutrition program is being developed in six counties.

Ohio is taking an active lead in the nation wide veneral disease program. Free arsenicals and heavy metals are furnished upon request free of charge to any physician in Ohio, and a small fee is paid to physicians for administering antisyphilitic treatment to indigent patients with communicable syphilis. Physicians receiving free drugs for the treatment of patients with syphilis are requested to furnish progress reports of patients to assist in the study of the veneral disease problem in Ohio. Free laboratory examination of blood specimens for syphilis from low income patients is provided to the physicians of Ohio.

Through the cooperation of local medical societies, venereal disease clinics have been established in the larger cities for the treatment of indigent patients with syphilis. Local physicians have been paid from Social Security funds to assist in these clinics. A study of these clinics has shown that too many advanced cases of syphilis are being treated, and too few acute cases.

Additional personnel has been provided to 41 of the 89 full time local health units. This per-

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The Author

● Dr. Markwith, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1917; member of the American Public Health Association; president Ohio Federation of Public Health Officials; health commissioner of Summit County 1912-1939; State Director of Health.

sonnel has included physicians, nurses, engineers, technicians, sanitarians, and clerks.

Local physicians specializing in tuberculosis have assisted the State Department of Health in conducting tuberculosis clinics throughout the State.

Studies of occupational diseases have been made by the Industrial Hygiene Division, and a great deal of assistance has been given to the State Department of Health by the industrial physicians of Ohio.

The hospitals of Ohio have been very cooperative in complying with requests from the State Department of Health in improving their maternity wards.

The State Department of Health is frequently requested to furnish statistical data, and we hope by the use of the tabulating machine we will be able to compile our statistical material more rapidly.

Numerous requests are received every day by the State Department of Health for literature pertaining to public health subjects. Recently approved magazine articles and books on various subjects are being catalogued for assisting individuals in securing information on various public health subjects.

One of the most exacting activities of the State Department of Health is the allocation and disbursements of the Federal and State funds, which amount to approximately a million dollars each year. A well trained auditing and bookkeeping staff is required to disburse these funds in accordance with numerous laws, rules, and regulations. A large per cent of these funds are allocated to local health units.

The local health department with a well trained personnel is in a position to render an invaluable health service to the local community. Ohio has too few full time health units.

Public health in Ohio needs the sympathetic cooperation of the medical profession as well as support and confidence of the people. John H. Stokes wrote 20 years ago, "the time had already come when the broad problems of the peoples' health could be solved only with more help from the people themselves." How to get this help has been, and still is, one of our greatest problems.

During the past quarter of a century medical science has developed techniques which, if universally applied, could further greatly decrease suffering and death. This new knowledge has not been completely used, not because a large segment of the population cannot afford it, but to a considerable extent because the people have not been effectively shown its usefulness.

Obstetricians have long known the importance of early prenatal care in the prevention of obstetric emergencies, but still a majority of women wait until the latter month of pregnancy before reporting to a physician, and some do not have a physician at all.

No new knowledge was needed to convince us that early tuberculosis is far easier to cure than late, and yet advanced cases continue to make up the mass of admissions to our sanatoriums.

In spite of our intensive campaign against syphilis, only 6 per cent of its victims are diagnosed in the primary stage, when cure it most sure, according to a recent survey of the American Social Hygiene Association.

A recent survey of breast cancer patients at the Hospital of Washington University, showed that these patients on the average had a recognized lump in the breast for three years before they did anything about it.

We have been talking about persons who eventually had the services of a physician. Why did they not receive help sooner, is a complex problem.

I wonder if health education has failed to accomplish its purpose partly through lack of planning, and partly because it is begun too late in life. Should we not impress more completely upon the child the value of the annual physical examination in the physician's office?

Should not the high school student have health subjects taught to him by well trained teachers that will enable him to enjoy and use in good health the education he has received? Will not the high school students of today become the mothers and fathers of tomorrow? Are we as health officials and physicians doing our part in health education when high school students admit today they receive a great deal of their health education from the radio?

I do not believe syphilis will be eradicated in the United States by the treatment of old chronic cases. Syphilis occurs more frequently during early adult life, the high school student becomes the most likely victim of this disease. Why not teach him before it is too late.

Why not teach every high school girl that a blood test for syphilis is just as much a part of a prenatal examination as the taking of the blood pressure and the examination of the urine.

The program of the State Department of Health for the future will be to endeavor to establish a harmonious relationship with the medical profession, so that those engaged in public health may feel free to frankly discuss health and medical problems, in the hope of solving these problems with a unified approach.

There are several problems that should be given consideration in the very near future.

1. The investigation of the sulfanilamide treatment of trachoma, and a study of the environment sanitation and nutrition in trachoma areas.

2. (a) Consideration of the serum and sulfapyridine treatment of pneumonia.
   (b) Why pneumonia is more prevalent in the lower economic level.
3. A study of the value of the skin test for pneumonia, as developed by Dr. L. D. Felton of the National Institute of Health.
4. A study of the value of Polysacchride developed at Rockefeller Institute for vaccination against type I and II pneumonia.
5. The relationship of public health officials to the medical profession in the control of cancer.
6. What should be done in a nutrition program.
7. Why does the incidence of tuberculosis remain so high in high school students.
8. Do limestone areas have a relationship to tuberculosis that is different from sandstone areas.
9. How can we improve our venereal disease program?
10. A problem of trichinosis that is being created by areas outside of municipalities feeding uncooked municipal garbage to hogs.
11. The problem of maternal deaths.

These are only a few of the problems that will need consideration. From time to time there will be additional problems. Some may be local, others may be state wide, and I am certain the health commissioner in any community will welcome the assistance from the local medical society, as the State Department of Health will welcome the assistance of the medical profession of the State of Ohio.

Treatment of Acute Suppurative Peritonitis

In reading over the literature of the past several years on the treatment of acute suppurative peritonitis with perforation, one is impressed with the lack of uniformity of treatment in the various clinics throughout the country. Leading clinics have exactly opposite views on the treatment of the ruptured appendix. The majority advocate operation and some make so bold as to state that very few cases fall into the class of the deferred operation. All, however, are agreed that our rising mortality is in the acute suppurative appendix with perforation and spreading peritonitis.

We are prone to blame the public for the administration of cathartics, but the public is certainly not consuming any more cathartics today than ten years ago. If the depression was responsible for the delay in seeking medical advice, certainly that is not the trouble today when our changed social outlook has more or less removed any moral obligation which the low-income group may have in regard to the payment of medical bills. Our mortality continues to rise, and while the education of the public is a very praiseworthy accomplishment, it has always appeared to me that the more direct approach was by the education of our surgeons and by the development of some uniform method of handling these cases.

Let us visualize what takes place. The acute suppurative appendix becomes a sealed test tube which progresses to the point of rupture. The lumen of the appendix has ceased to be continuous with the lumen of the cecum. When the appendix ruptures, the damage is done. The contents of the sealed test tube are emptied and nothing is attained by operation. The term, "leaking appendix," is a misnomer or rather, a nonentity. What can we hope to accomplish by operating upon a ruptured appendix with spreading peritonitis! We do not help the peritonitis by removing an empty appendiceal sac, and no benefit is derived from the insertion of drains because drainage does not take place until Nature has overcome the peritonitis, which is a matter of a week or ten days.

As in all controversial matters where there is a profusion of literature, we tend to stray far afield, and we only correct the confusion when we return to first principles. These first principles were laid down by Ochsner of Chicago in 1892—namely, deferred operation and supportive treatment until Nature has overcome the peritonitis. This is known as the "Ochsner Treatment" or the "Peritonitis Routine". It is a pre-operative and not a post-operative treatment, and if put into effect will go a long way toward lowering our appendiceal mortality. The added burden of a general anesthetic and an operative procedure is often just enough to tip the scales in favor of our rising death rate.

We will only make progress when—

1. The public becomes educated to the signficance of a "belly ache".

2. The medical men eliminate such diagnoses as (a) "Flu belly". (b) acute mesenteric lymph-adenitis.

3. The surgeon has the courage to stay out of an abdomen that is the seat of a spreading or a general peritonitis.—Farrell T. Gallagher, M.D., Lakewood, Ohio.

Doctor Player reports an unbelievable expense from an industrial accident case. A crushing injury resulted in, among other things, paraplegia and loss of both anal and vesical control, necessitating retention catheters. This condition existed for fifteen years, until the patient died of a pyonephrosis. Believe-It-Or-Not, his hospital expense was almost $25,000; nursing expense, nearly $15,000; and doctor bills, nearly $4,000: a grand total of over $43,000.—Lionel O. Player, San Francisco.

Graduate Surgical Training

CHARLES A. BOWERS, M.D.

AN adequate program for graduate surgical training in any hospital has a manifold purpose. The altruistic motive is, in itself, sufficient to arouse the interest of most practicing surgeons, as it is the desire of all conscientious surgeons to raise, ever higher, the general standards of their profession. Even if one were to go to the other extreme and view the matter from a wholly selfish standpoint, a highly trained, competent, and surgically wise house staff is a very desirable aid in a surgical practice. A capable surgical resident staff can contribute, in a very material manner, to the success of a visitant's hospital work, and can reduce his natural apprehensiveness during the time he is away from the hospital, as well as adding to the general welfare of the patient. In so far as the hospital is concerned, a reliable resident organization will do much to fill the hospital beds, through the outstanding service rendered to the patient and doctor. There will be variations in the size of the resident staff, and the extent to which it is developed, due to limitation of bed capacity and other local conditions, but even the smallest hospital should be able to engage in a teaching program to the limit of its ability.

Hospitals affiliated with medical schools have had a better opportunity to offer a definite course in graduate surgical training to their house staffs than have the non-university group. This better opportunity is due to their ability to call upon the faculty and facilities of the medical school for aid in their realization of a sound graduate program. Particularly is this true in regard to the availability of men skilled in the basic medical sciences, although adequate substitution can be made for this part of the work if a hospital has on its staff men who have developed in some of these subjects as special interest fields.

It is true that some of the hospitals affiliated with medical schools do not take full advantage of this better opportunity. Their plans for the undergraduate may be beyond criticism, but the graduate members of their resident staffs are just as so many sponges, absorbing only those things with which they come in contact during their routine duties, or picking up some of the crumbs of wisdom that fall from the lips of the professors. In many of the non-university connected hospitals of the country the formal teaching of the house staff seems to have been entirely neglected.

It has been hard to understand why a well organized non-university hospital could not maintain a course of training for its residents equal in quality to that afforded by many of the outstanding medical school hospitals. If, in the development of a teaching program in a non-university hospital, sane major premises are adopted and worked out to their logical conclusion the results should be those that merit approval.

For the type of teaching program that I am about to describe let us assume the following:

1. A hospital with approximately 400 beds, of which 30 to 35 per cent are devoted to free work.
2. A competent and well organized visiting staff with encouragement for development in special interest fields.
3. A group of non-staff surgeons with high professional standards.
4. A dispensary which is an integral part of the basic hospital organization, headed by a medical director. Free work should be done upon the recommendation of a private doctor, and careful study by the social service department.
5. An emergency room which is also an integral part of the whole organization. This department should in no way antagonize the private non-staff doctor by taking over his patients. On the contrary, every effort should be made to contact him before emergency service if possible, but certainly afterward in order to send the patient back to his own physician.
6. A resident surgical staff developed over a period of at least four years after internship. The ideal would be five years. This should be a graduated service in which the senior resident is given, under proper guidance, full responsibility for the surgical house staff, and should have performed during his total service at least 400 to 500 major surgical operations.
7. A definite teaching program in which each member of the visiting staff is given an opportunity to make his contribution. It must always be remembered that this is a graduate form of teaching which differs materially from the undergraduate. The opportunity to engage in research work may be given, particularly in those hospitals in which a department of experimental surgery has been developed. The way to learn is

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The Author

● Dr. Bowers, Cleveland, Ohio, is a graduate of Johns Hopkins University Medical School, 1912; fellow American College of Surgeons; Certified by American Board of Urology; American Board of Surgery (Founder Group); head of the department of urology, St. Lukes Hospital, consulting surgeon, U. S. Marine Hospital, Cleveland, Ohio.

by doing, and the opportunity to do must be given.

8. Certain basic ideals emphasized, principally by example, such as the spirit of service, the golden rule of surgery, the desire to acquire the ability to make proper differential diagnoses by exclusion, to gain surgical judgment, develop a surgical conscience, and to develop the ability to inspire confidence in the patient.

9. Professional services cooperating and in harmony with the nursing and executive organizations.

10. A director of the service who will look upon his appointment as an opportunity to aid in the development of the hospital, the service, and the young surgeons, as well as giving opportunity to his professional assistants, and who will not look upon the service as his personal property to use for the furtherance of his own personal ambitions and fortune.

In 1932, Saint Luke's Hospital in Cleveland, with approximately 400 beds, had a very competent and diversified visiting staff of 40 members, which included the surgical specialties. Some of the visitants had had over 20 years experience in surgery. Some had had their scholastic and resident training under the master surgeons of the country, which made it possible for us to build upon a very firm foundation. We were able to find very little, if anything, in the medical literature to aid us in forming the type of service in which we were interested. If much had been done along these lines little had been published. We could follow the routine established in many medical school hospitals during the past 50 years, but our problem was somewhat different. Fortunately there were many of my professional friends who had been connected with medical teaching for many years, and gave me their advice and criticism freely.

In the following discussion I am taking up our experience at Saint Luke's Hospital in the six-year period between January 1933, and January 1939, at which time I was director of surgery.

We considered it fundamental that we should first develop a basic teaching program in the general surgical service. Accordingly eight members of the visiting staff were divided into four groups of two men each, and assigned dates and duties as follows:

	Jan. Feb. March	Apr. May June	July Aug. Sept.	Oct. Nov. Dec.
Day Accidents	Group 1	Group 4	Group 3	Group 2
Night Accidents	Group 2	Group 1	Group 4	Group 3
Dispensary	Group 3	Group 2	Group 1	Group 4
Free Period	Group 4	Group 3	Group 2	Group 1

This changed the type of the visitant's work and gave him a free period of three months each year from detailed duties. During this time the men were encouraged to at least visit other clinics, or take a short post-graduate course.

Two very important committees of the visiting staff were organized, a committee on malignant diseases, and a fracture committee.

The committee on malignant diseases was made up of four members who had shown particular interest in four distinct systems of the body, namely breast, gastro-intestinal, female reproductive organs, and urology. The work of this committee was to standardize methods of diagnosis and treatment in keeping with the latest surgical thought. At the onset each member brought his subject up to date and gave his conclusions to the surgical staff for criticism. When an agreement was reached it was then presented at a formal meeting to the whole hospital staff; one paper being given as a portion of four separate programs. This work should be continued in like manner until every system of the body is covered.

The fracture committee was made up of three men very much interested in fractures, consisting of two general surgeons and one orthopedic surgeon. Fracture work is still very much of interest to the general surgeon, and many of the men on the staff, in their private work, were engaged in industrial and traumatic surgery. Through the fracture committee the attempt was made, not to put the actual work in the hands of the committee, but to have them standardize and influence the type of work done, and the special apparatus in use. This committee had full responsibility in standardizing types of work, keeping proper records, and encouraging the proper rehabilitation of the patient.

In a recent report by the New York Committee on the Study of Hospital Internship and Residencies the following is stated: "Students seeking to develop themselves in the fields of thoracic surgery, neurosurgery, traumatic surgery, cancer surgery, goiter surgery, plastic surgery, or oral surgery are urged to precede their special studies by a residency in general surgery, as do general surgeons. In other words, it seems essential that these men be general surgeons first, before they venture into their specialized fields". From the beginning this has been our viewpoint in the development of our visiting staff, many of whom have special interest fields. It was also our idea to develop other special interest fields as occasion arose.

In regard to the non-staff men who wished to do surgery, a minimum standard for their competency was outlined by a group of hospitals in this community. Saint Luke's Hospital not only followed this, but increased the requirements for the operating surgeon.

The resident service was extended to four full

years beyond the internship. A third assistant resident was chosen each year from among the internes, by ballot of the visiting staff. The man chosen then normally, but not necessarily, received a new appointment each year, which carried him through the four years of residency. The duties of the newly organized resident staff were outlined as follows:

Third Assistant Resident Surgeon: Supervision of surgical house staff in dispensary, each morning. Instruction in the biochemical and surgical pathological laboratories, each afternoon. Supervision of interne work in the surgical laboratory. Checking of histories and charts of internes. In charge of the weekly surgical pathological conferences, under the direction of the associate surgical pathologist. Attendance at autopsy demonstrations in pathological and surgical anatomy. Follow-up studies in the out-patient department and on cases of malignancies for the meeting of the committee on malignancies.

Second Assistant Resident Surgeon: Work confined largely to traumatic surgery. Direct supervisor of accident room and accident cases admitted to the hospital.

First Assistant Resident Surgeon: Direct supervisor of all non-staff straight surgical cases. Ward rounds on all surgical cases.

Resident Surgeon: Head of the surgical house staff. General supervision of all surgical cases. History meetings with the internes. Connecting link between surgical house staff and director of surgery. The resident surgeon, or one of the assistant residents, acts as first assistant at all surgical operations, a rule of the hospital prohibiting an outside man acting in this capacity. Upon completion of the service, the residents who located in Cleveland were given positions on the visiting staff.

There is a definite need for the extension of the four-year residency to five full years. In this way the higher requirements of the American Board of Surgery will be met, and more skilled surgeons produced. This will tend to raise the level of the profession in the community.

The following is an outline of the graduate teaching program:

Ward Rounds: Diagnostic problems, preoperative, operative and postoperative care. Complications. Detailed discussion of cases, stressing anatomical and physiological changes. Once each week.

Clinical-Pathological Conferences: Detailed discussion of selected autopsies. Clinical and autopsy findings. Demonstration of gross material with microscopic changes. Once each week, with the departments of pathology and clinical departments.

Surgical-Pathological Conferences: Pathological material from the operating room. Gross and microscopic changes. Comparison with the normal. Mortality statistics and detailed study of cases. Once each week.

Formal Discussions on Assigned Subjects: General outline of surgical conditions. Inflammation, injuries, deformities, tumors, with involvement of various systems of the body. Basic surgical conditions emphasized. The ethics of the surgeon. Detailed study of surgical conditions in the various systems of the body. Current literature, not as a dry and isolated subject, but applied to individual problems. The work of master surgeons. The newer aspects of surgery brought from recent surgical meetings. The social position of the patient and its implications. Once each week.

Individual Conferences: Short individual conferences with each member of the interne staff by a member of the visiting staff. Problems, suggestions, histories, and laboratory work. Once each week.

Dispensary: Use of the dispensary for teaching purposes to small groups. Diagnosis and treatment of the ambulatory case. Hospitalization. Daily.

Accident Ward: The emergency room and its problems. Technique. Immediate and remote surgical treatment. The moving of fracture cases. Improvised splints. Daily.

Operating Room: The operating room and its problems. Technique. Demonstration of selected cases. Various methods of anesthesia. Daily.

Laboratory: Standardization of methods. Each interne does the simpler laboratory procedures on patients under his care. This should be under capable supervision.

Ward Rounds: Ward rounds by the visitant and resident with the individual or small groups of internes. Ward rounds with the nurses on selected cases. (At stated intervals.) Supervisory rounds by director of surgery and supervisor of ward. Daily.

The cooperation of the various professional divisions of the hospital was obtained through frequent meetings of the Medical Council. This was the professional policy forming body and was made up of five members, the directors of medicine, obstetrics, and surgery, the hospital superintendent, and the chairman of a committee of the professional staff. Coordination of the professional work with the nursing department was obtained through a sub-committee of the nursing school committee, made up of five members—the director of the school of nursing, the hospital superintendent, and the directors of the divisions of medicine, obstetrics and surgery. The contact with the board of trustees was made through the superintendent and a staff representative.

The director of surgery supervised all the work of the surgical service, made daily visits to the accident ward to study reports of cases admitted, daily visits to the surgical dispensary, and daily visits on dispensary and accident cases admitted to the hospital. Frequent conferences were held both with individuals and groups concerning the conduct of the service. This included all head nurses, the chief anesthetist, and supervisors of various departments, as well as the principal of the nurses training school and her associates. Detailed rounds were made with house surgeons on all cases at least twice a week.

In a study of the surgical residencies in Ohio hospitals, approved by the American Medical Association, we find the training period of the resident surgical staff as follows:

Hospital	Pct. Free	Training Months
Cincinnati General Hospital, Cincinnati	87%	72
St. Luke's Hospital, Cleveland	18%	48
City Hospital, Akron	30%	36
Good Samaritan Hospital, Cincinnati	5%	36
University Hospital, Cleveland	33%	36
Starling-Loving Hospital, Columbus	58%	24
City Hospital, Cleveland	97%	18
St. Thomas Hospital, Akron	20%	12
Mt. Sinai Hospital, Cleveland	20%	12
St. Alexis Hospital, Cleveland	23%	12
St. John's Hospital	18%	12
St. Vincent's Charity Hospital, Cleveland	35%	12
Huron Road Hospital, Cleveland	2%	12
Mercy Hospital, Canton	28%	12
Deaconess Hospital, Cincinnati	5%	12
Jewish Hospital, Cincinnati	20%	12
Miami Valley Hospital, Dayton	23%	12
St. Elizabeth's Hospital, Youngstown	3%	12

The following hospitals in the country give 48 months or more in the training of the resident surgical staff:

Hospital	Pct. Free	Training Months
Johns Hopkins Hospital, Baltimore, Md.	43%	84
New York Hospital, New York, N. Y.	23%	72
Cincinnati General Hospital, Cincinnati, Ohio	87%	72
University Hospital, Iowa City, Ia.	86%	60
University of Chicago Clinics, Chicago, Ill.	38%	60
Buffalo General Hospital, Buffalo, N. Y.	65%	60
Saint Luke's Hospital, Cleveland, Ohio	18%	48
University of Kansas Hospital, Kansas City, Kans.	66%	48
Louisville City Hospital, Louisville, Ky.	90%	48
Charity Hospital, New Orleans, La.	100%	48
Provident Hospital & Free Disp., Baltimore, Md.	73%	48
Duke Hospital, Durham, N. C.	56%	48
University of Virginia Hospital, Charlottesville, Va.	30%	48

The following hospitals in Ohio are approved for graduate training in General Surgery by the American College of Surgeons:

Hospital	Affiliation for Graduate Training	Ownership	Capacity	Type of approval
AKRON				
City Hospital	University of Pa. Graduate School	Community	365	Full
CINCINNATI				
Cincinnati General Hospital	University of Cincinnati	City	925	Full
Good Samaratin Hospital	None	Church	550	Provisional
CLEVELAND				
City Hospital	Western Reserve University	City	1669	Full
Cleveland Clinic Hospital	None	Foundation	229	Full
Lakeside Hospital	Western Reserve University	University	378	Full
Mt. Sinai Hospital	None	Community	270	Provisional
St. Alexis Hospital	None	Church	220	Provisional
St. Luke's Hospital	None	Church	392	Full
COLUMBUS				
Starling-Loving Hospital	Ohio State University	State	282	Full

That the training of surgeons in non-university connected hospitals can be successfully accomplished is best illustrated by the fact that our hospital has been given unconditional approval for graduate training in general surgery by the American College of Surgeons. The following chart shows that this is a high honor:

There are 6189 registered hospitals in the country.

Of the 6189 only 2577 meet the minimum standards of the American College of Surgeons.

Of the 2577 only 939 are approved for the training of internes and residents.

Of the 939 only 827 were selected for the survey. The others for various reasons were declared unsuitable for graduate training in general surgery.

Of the 827 surveyed only 140 were selected for thorough investigation.

Of the 140 only 98 were approved for graduate training in general surgery.

Of the 98 only 68 were given full approval, the remaining 30 given only provisional approval.

Of the 68 approved, 58 were affiliated with a university or a medical school. Which means that there are only 10 hospitals in the country, except those affiliated with universities or medical schools, or requiring part of the work to be taken in a graduate school, that have the full ap-

proval of the American College of Surgeons for graduate training in general surgery.

The 10 non-university connected hospitals are:

County Hospitals—Los Angeles County Hospital, Los Angeles, Calif.; Grasslands Hospital, Valhalla, N. Y.

City Hospitals—Baltimore City Hospital, Baltimore, Md.; Sea View Hospital, West New Brighton, N. Y.; Union Memorial Hospital, Baltimore, Md.; Beth Israel Hospital, Boston, Mass.

Community Hospitals—Clifton Springs Sanitarium & Clinic, Clifton Springs, N. Y.; Memorial Hospital for Treatment of Cancer & Allied Diseases, New York.

Foundation Hospital—Cleveland Clinic Hospital, Cleveland, Ohio.

Church Hospital—Saint Luke's Hospital, Cleveland, Ohio.

To all my associates who aided in the development of this program, and to those of other hospitals who gave freely of their advice I acknowledge a debt of gratitude. There is still a great deal to be done; we have probably only scratched the surface. A service of this type should be dynamic, not static. Also, there are many different ways in which a service of this type could be organized. Ours is the one, which at the time, seemed best. One must not be dogmatic either in his methods of organization or of teaching. We are unable to even mention many of the things that we were interested in, or those things, because of lack of funds, which we were unable to do. One must always think of follow-up work, research, departmental budgets, a period of travel to the various clinics for the resident, a policy of exchange of assistant residents, a history club, and many special service developments, activities, ad infinitum.

The development of the program was a source of great pleasure and satisfaction to me. We have offered this as a living memorial to the ideals of that great surgeon, teacher, and humanitarian, Dr. Dudley P. Allen, formerly professor of surgery at Western Reserve University, in whose honor the new Saint Luke's Hospital was built.

SUMMARY

1. It is possible to develop in a non-university connected hospital a surgical organization that compares favorably with the university hospital.

2. Any hospital may organize to accomplish the greatest good if certain fundamental rules are followed to develop its individual needs. The spirit of service, however, must be paramount. "He profits most who serves best".

3. It is essential that there be a close connection and complete understanding between the board of trustees, superintendent of the hospital, director of the nurses training school, and the professional staff.

4. It is very helpful to have a group of hospitals in the same community with minimum standards for the operating surgeons. It is most important for the individual hospital to have these standards.

5. A large number of the visiting staff may actively take part in the work of the clinic, and not only aid the hospital organization, but also help each individual develop in his own particular field.

6. The long house staff service of at least five years can be successfully carried out in this type of hospital.

7. The hospital and the service can aid the young surgeon after he leaves the hospital by making him a member of the visiting staff organization after he completes his house service. It is important not only to train a young surgeon, but also to develop him.

This type of hospital organization and development of the young surgeon guarantees hospital security for the future.

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300 X-Ray Examinations Per Hour

A new method of X-raying the chests of large groups cheaply and quickly has been developed in Germany. It consists of photographing the fluoroscopic image on motion picture film. When developed, the strip of film is projected on a screen for interpretation. By this method two physicians, assisted by a crew of 10 men, examined at the rate of 300 per hour, more than 10,000 men during a Nazi party celebration at Nüremberg. The device is not a substitute for the standard X-ray technique but is a means of "screening" and it promises the possibility of examining the whole nation—Holfelder, H. and Berner, F., Muenchen. Med. Wchnschr. 1938, 47.

The Management of the Asthmatic

MILTON B. COHEN, M.D.

HAVING studied our patient sufficiently to determine that he has bronchial asthma, either alone or accompanied by secondary bronchial changes, how shall we manage him so as to ascertain the etiology of the asthma, the prognosis for relief, and to effect a symptomatic cure? This is a clinical problem, the answer to which can be obtained chiefly by clinical means, supplemented by the clues obtained from skin testing.

1. **Environmental**—Place the patient in a relatively allergen-free room for a period of from seven to ten days. If the attacks disappear, the etiological factors are inhalant and environmental and the patient has **extrinsic inhalant asthma.** If the attacks persist some ingested substance may be causing them.

2. **Dietary**—While in the controlled environment, put the patient on a milk and banana diet for two or three days, supplementing the diet with purified vitamins. If no change occurs on this diet give some other limited diet containing neither milk nor banana, suitably fortified with vitamins for another test period or two or three days. If the attacks clear up on dietary management we are dealing with a case of **ingestant asthma.** If, following environmental and ingestant control as outlined above, the attacks persist, inhalant and/or food substances are usually not responsible for the symptoms. They may be due to organic changes in the bronchial tree or to bacterial sensitization. The patient is then said to have **intrinsic asthma.**

If the patient on combined environmental and dietary control or either one alone loses his acute attacks but has residual cough, wheezing or expectoration, the severity of these symptoms is an indication of the amount and activity of the bronchial pathology and/or bacterial sensitivity in the etiology. Such a patient is said to have **combined extrinsic and intrinsic asthma.**

When a patient loses all of his symptoms on environmental control (80 per cent of cases between 15 and 40 years of age will do this), thus proving that he has **extrinsic inhalant asthma,** consideration of his contacts during his normal activities and a knowledge of the relative importance of various substances in the etiology of asthma in general, will suggest specific exposures. For example: a patient with severe nonseasonal nocturnal asthma who never has symptoms while at work is suspected to be sensitive to house dust and more particularly to the dust in his bedroom arising from his mattress and pillows. Send him from the controlled environment into his bedroom. If sleeping on his own bed is followed by recurrence of attacks which are again controlled by removal to the dust-free environment, the proof is obvious. Management consists of encasing the mattress and pillows in impervious covers and of ridding the room of the dusts from these sources which it contains. **This is treatment by avoidance of the offending allergens.**

Having determined that the exciting allergens in this case come from the mattress, pillows or bedding, it is important to identify, if possible, the exact source of the allergens, since they may be present in other parts of the patient's home or in homes which he visits. Skin tests with feathers, house dust, cottonseed and any other substances suspected should be performed. If a positive test is obtained, contact with the substance giving the reaction should be avoided. This substance may be present in other rooms of the house. It may not be possible to avoid it completely. **Specific therapy** should, therefore, be given to raise the patient's tolerance to a level sufficiently high to protect him against the casual contacts with the offending allergen. In the case described above, let us assume that a positive reaction is obtained to house dust. The bedroom has been rendered dust free. Since house dust is an ubiquitous substance which is found in almost all overstuffed furniture, mattresses and pillows, these furnishings in the rest of the house must be vacuumed thoroughly daily so as to reduce the amount of dust contained in them. This cleaning should be done while the patient is out of the house. If the patient is a housewife and must do her own cleaning, it is imperative that

The Author

● Dr. Cohen is a graduate of the University of Louisville, 1915; fellow American College of Physicians; member Society for the Study of Asthma and Allied Conditions; vice president American Association for the Study of Allergy; member society for Experimental Biology and Medicine; visiting allergist, St. Alexis Hospital; director of the Allergy Foundation Western Reserve University.

One of a series of editorial summaries on the management of certain diseases, submitted at the request of the Editor.

she wear a mask while cleaning and dusting.* Injections of house dust are imperative, despite all of these precautions since our patient is certain to visit other homes where he will contact house dust.

Begin with a 1-100 or 1-50 dilution. Repeat the injection at three to five day intervals, gradually increasing the dose, following the rules described for the administration of pollens in hay fever until the patient tolerates 0.5 cc. of a concentrated extract. This dose should be repeated at weekly intervals for several months and then at monthly intervals until treatment has been continued for at least one year. Treatment may then be discontinued but the precautions must be kept in force.

A similar type of management is instituted for all cases of inhalant asthma except that specific therapy is carried out only for substances which cannot be avoided completely. It is rarely necessary, for example, to treat with animal danders.

When dietary management proves the case to be one of **ingestant asthma**, skin tests may give clues to those foods which cause symptoms within a few hours after their ingestion. They seldom aid in the incrimination of those foods which cause symptoms after a delay of from six to 48 hours. Dietary experimentation must be resorted to. There are three methods of approach to this problem.

1. One may add one food at a time for a test period of 48 hours to the diet on which the symptoms were controlled, gradually building up the diet while determining the etiological foods.
2. One may remove from the diet those foods giving positive skin tests. If the symptoms subside, one adds suspected foods, one at a time, for a test period of 48 hours until each is subjected to a clincal trial.
3. One may use a diet diary to obtain clues. Each clue thus obtained must be subjected to the type of clinical experimentation just described.

It is imperative to remember the dietary needs of the patient while these dietary experiments are being carried out. All too often in our enthusiasm to make an etiological diagnosis or to relieve the patient we subject him to a submaintenance diet with respect to one or more foods, mineral or vitamin substances and produce a deficiency disease equally as disastrous as the allergy for which he consulted us. This is particularly true when all foods giving positive skin tests are removed from the diet. **The practice of some clinicians of accepting a patient for a skin test diagnosis and the recommendation of treatment based on them alone is to be condemned.** Such a practice will result in benefit to the patient in only a small percentage of patients and most of these can be picked out clinically and managed successfully by any qualified general practitioner who will take the trouble to learn the fundamentals of allergy and to think about his patients. The vast majority of patients with allergy require a prolonged follow-up in order to establish an etiological diagnosis and to give satisfactory treatment. In fact, the plan of treatment and even its details must be changed from time to time as new information as to etiological factors is obtained or the patient's reaction and response to therapeutic injections are noted.

Unless the problem is explained in detail to the patient, he will get the idea that all substances giving skin tests are causative agents for his symptoms and that those substances giving negative reactions are harmless. He will follow some ridiculously limited diet without returning for supervision, will often fail to get relief and may be materially harmed psychologically and physically by the dietary deficiency resulting from the unbalanced diet.

During the time required for etiological diagnosis and proper treatment by avoidance or specific immunological methods we must remember that our patient is sick and that symptomatic relief of his symptoms is imperative. This can be accomplished by medicinal agents.

Epinephrine is the most effective drug for the relief of asthmatic paroxysms. The effect of this drug on a patient in an attack of asthma is startling when observed for the first time. Within from five to fifteen minutes after the subcutaneous injection of a suitable dose, the paroxysm begins to subside and usually within 30 minutes has completely disappeared. The effect following subcutaneous administration lasts for from thirty minutes to two hours. The therapeutic dose is much smaller than that usually recommended. Most text books give the dose as from 0.5 to 1.0 cc. (8 to 15 minims) of the 1-1000 solution and many physicians give the contents of one ampoule (1 cc. of 1-1000 solution) routinely. Such doses are very dangerous, and may cause attacks of palpitation, cardiac irregularity, intense throbbing headache, vomiting, intense excitability, tremor, blanching of the skin and extreme weakness. These epinephrine reactions are unnecessary as the full therapeutic effect on asthma can be obtained by small doses. It is a safe rule to give 0.2—0.4 cc. of the 1-1000 solution (3-6 minims) subcutaneously. The attack will subside in most cases in a few minutes; if it does not, the dose should be repeated in 20 minutes.

Patients having severe attacks will have a recurrence of symptoms in a few hours. For these it is well to observe the frequency of recurrence and to administer a dose of epinephrine just before the next attack begins or on its inception. Often the administration of 0.3 cc. of the 1-1000 solution every three or four hours, day

*These masks can be purchased for $.60 from the Martindale Electric Co., Cleveland.

and night, will prevent the symptoms completely and less of the drug will be needed than if one waits for the attack to be full blown before giving it. For this reason all asthmatic patients should be taught to administer epinephrine to themselves. A glass syringe should be used and it should be boiled, and not sterilized by chemicals, since the chemical in the syringe may destroy the drug. The solution used must be crystal clear and colorless. The slightest tinge of color indicates that some of the potency is lost and when there is obvious pink color the solution is useless. This explains why some physicians are disappointed with the drug therapeutically, and also why doses of 1.0 cc. are so often given without dangerous reactions.

Recently, suspensions of epinephrine base in vegetable oils have been placed on the market. The subcutaneous or intramuscular injection of from 0.5 to 2.0 mgm. sometimes gives a much more prolonged effect than that following injection of the hydrochloride in aqueous solution. This is due to the slower absorption from the oil bases. **A dry syringe must be used for injections of epinephrine in oil.**

Another very useful way to administer epinephrine in asthma is by inhalation. A 1-100 aqueous solution of the hydrochloride is used in a suitable vaporizer (DeVilbiss No. 40 or Parke, Davis & Co.). It is important to use a vaporizer which breaks up the solution into a mist which can hardly be seen. For use, a few drops of the 1-100 epinephrine hydrochloride is placed in the vaporizer. The open end is placed in between the lips with the mouth open and one or two sharp squeezes on the bulb are made during each inspiration so as to mix the vapor with the inspired air. This procedure is repeated during from three to six inspirations. The mouth is then washed out with water. Relief is produced by a local shrinking effect on the bronchial mucous membrane.

Epinephrine sprays are useful only in those asthmatics who cooperate well in carrying out the technique. The effects are not nearly so dramatic as those obtained by hypodermic administration of the drug. Since the vaporizer and the solution are expensive it is advisable to let the patient try the effect before ordering him to make any expenditure.

EPHEDRINE

Ephedrine is the alkaloid of the plant Ma Huang which has been used as medicine by the Chinese for centuries. Pharmacologically, its effects on the sympathetic nervous system are similar to those of epinephrine, but the effect is more lasting. It is readily absorbed from the gastrointestinal tract and its full therapeutic effect can be obtained by oral administration. It has been used in the treatment of patients with asthma since its introduction in 1924, but a large experience with it has proved it of less value than was expected from its action in animals. Except in rare instances, a full therapeutic dose will not relieve a severe paroxysm of asthma. It is helpful in continuous doses in preventing mild seizures and does control the wheezing of the mild asthmatic state very well. It also controls some cases of urticaria. It is best administered as the hydrochloride or sulphate in doses of from 25 to 65 mgm. The effect lasts from four to six hours.

Ephedrine is poorly tolerated by most patients when given alone. It produces wakefulness, bad dreams during sleep, marked weakness, nausea, sweating, and in some patients, cardiac irregularity. In older men it produces symptoms of prostatic obstruction. The cerebral symptoms can be controlled by administering a small dose of some hypnotic with each dose of ephedrine. It is our custom to prescribe from 5 to 10 mgm. of phenobarbital or other barbiturate with each 50 mgm. of ephedrine hydrochloride. This dose can be given four times daily evenly spaced between the hours of arising and retiring. Extra doses are useless if an attack supervenes. Epinephrine should be given for such an attack.

Ephedrine, like all alkaloids, is soluble in oils. A 1 per cent solution in oil is often used in the nose.

The use of mineral oil solutions in the respiratory tract should be avoided because of the dangers of inhalation of the oil into the lungs, resulting in some cases in the development of lipoid pneumonia. One per cent ephedrine hydrochloride or sulphate in an isotonic aqueous solution should be substituted for the oil solutions of the alkaloid.

There are several synthetic ephedrine-like substances on the market. They are more expensive than ephedrine and have no advantage if some barbiturate is added to ephedrine, as described above, when it is administered orally.

OPIUM

Some form of opium is recommended in asthma by most writers on medical subjects. Its routine use in asthma is contraindicated as it depresses the respiratory center and abolishes the cough reflex. Many deaths can be directly attributed to its indiscriminate use. Sedation is best obtained by some one of the barbiturates.

BELLADONNA, STRAMONIUM, HYOSCYAMIN

The effects of these drugs depend on their atropine content. Atropine paralyzes the innervation of the bronchial muscles and glands, causing bronchial dilatation and lessening of the mucous secretions. The best effects are obtained when the drug is inhaled. This can best be ac-

complished by inhaling the smoke produced by burning powder of the following composition:

Powdered Stramonium gm. 1
Potas. Nitrate gm. 2

or the smoking of a stramonium cigarette. The smoke of 1 gm. of stramonium leaves is said to contain 0.3 to 0.5 mgm. atropine. Most of the asthma cigarettes and powders on the market are similar to the above formula, although some contain tobacco, lobelia, anise and other volatile substances. The inhalation of these smokes is followed in a few minutes by cough and expectoration of the mucous plugs which are obstructing the bronchial tree. In some patients, the relief is prompt and satisfactory, in others apparently similar clinically, no relief is obtained. **Atropine is contra-indicated when administered by other routes** since it dries up the secretions and makes it more difficult to expectorate the mucous plugs.

IODIDES, TOBACCO, LOBELIA

These drugs assist in the relief of mild paroxysms of asthma by their thinning effect on the bronchial mucous. The iodides are excreted directly in the bronchial mucus, tobacco and lobelia produce thinning by their nauseating effect. Iodides are often of use between acute paroxysms, particularly in those asthmatics with secondary bronchitis. Since the iodides are absorbed from the gastro-intestinal tract with amazing rapidity, their full effect is obtained by oral administration and there is no justification for their administration by the intravenous route.

CALCIUM

Calcium has been used in allergy because of its alleged antiedemic action in diminishing cellular permeability. Recently it has been shown that this action cannot be demonstrated experimentally and studies have shown that there is no clinical effect when calcium is administered under controlled conditions. It need not be used.

Many other drugs have been used in allergy. Among them are theophylline ethylene diamine (aminophylin) helium and oxygen mixtures, ether in oil, which appear to have minor and occasional fields of usefulness.

3. General—The allergic individual is a sick individual and must be managed as an integrated organism. Medical and surgical conditions other than those primarily related to the allergy must be correctly treated. Attention should always be directed to the diet as these patients need more vitamins and minerals than do non-allergics to maintain a normal metabolism. It is almost as important to control obesity as it is to overcome malnutrition. Finally, the psychology of the patient must be thoroughly understood and proper methods used to direct the psychic reaction to the disease into constructive channels.

10616 EUCLID AVE.

Disadvantages of Using Sulfapyridine

1. It does not neutralize the specific carbohydrate.

2. The lack of certainty concerning its value or toxicity in any patient.

3. It is irregularly absorbed and may be irregularly excreted and metabolized. The amount of acetylization in any patient is unpredictable. Osgood found that the acetylated sulfapyridine was inactive.

4. No one has determined the time necessary for the action of these drugs at a given concentration or whether maintenance of high concentration for a short time is perferable as more effective and less dangerous than a lower one for a longer period.

5. It is a poisonous drug acting on the tissues of the host as well as upon the invading pneumococcus, and as yet the margin of safety is not known. It may cause permanent damage. That has been observed with sulfanilamide. (There is, as yet, no certain knowledge concerning effective concentrations in the blood. Various concentrations have succeeded or failed, due either to variation in host antibody production or to susceptibility of the invading organism.)

6. The drug does not act if out of contact with living tissues. It will not sterilize abscess cavities or foci from which organisms may be absorbed. These must be attacked, as in the case of serum, by surgical measures.

7. When the drug is stopped or while it is administered, there may be a period of elevated temperature, apparently related to the use of the drug. (Sulfapyridine sickness.)

8. The effect of the drug is quickly lost and if sterilization of the blood stream, bone or lung is not complete, the patient is soon left unprotected. It takes some time for all serum antibodies to disappear from the blood.

EFFECTS OBSERVED IN USING SULFAPYRIDINE

1. Severe nausea and vomiting, diarrhea and tympanites and ulcers in the rectum.
2. Fullness of the head.
3. Marked prostration.
4. Icterus and hemolytic anemia.
5. Marked neutropenia and agranulocytosis.
6. Hemorrhagic and other eruptions on skin and mucous membrane.
7. Hemorrhage from the kidney.
8. Azotemia and suppression of urine which may be due either to kidney damage or to the hypochloremia secondary to the induced vomiting.

—Jesse G. M. Bullowa, M.D., New York; Jr. Mich. State Med. Society, Vol. 38, No. 7, July, 1939.

Present alarming statements gently—remember that quinine is prescribed in capsules.—Fetterman.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

TUBERCULIN ANERGY AND THE VARIABILITY OF TUBERCULINS

THE question of anergy to tuberculin in the presence of presumptive tuberculosis has been the subject of much recent discussion. Especially noteworthy have been the carefully conducted and concisely reported studies of Lumsden, Dearing, and Brown on tuberculosis infection in school children in Coffee County, Alabama, and Giles County, Tennessee, which were reported recently in the *American Journal of Public Health*. These investigators compared the incidence of positive reaction to several different kinds of tuberculin, in relation to the incidence of lesions diagnosed as tuberculosis in X-ray films, and found not only a lack of correlation between the tuberculin reaction and the presence of shadows in X-ray film interpreted as representative of tuberculosis lesions, but a wide discrepancy in the percentage of positive reactions to different samples of tuberculin. The lack of correlation between tuberculin reaction and X-ray examination was most conspicuous in the case of films showing shadows interpreted as calcified lesions of primary tuberculosis.

SIGNIFICANCE OF CALCIFICATIONS

Numerous observers have noted the absence of tuberculin allergy in cases with presumptive evidence of old tuberculous infection in the form of calcified intrathoracic masses with the frequency of negative reaction in the presence of pulmonary calcifications ranging from 17 to 46 per cent in different series in the hands of different observers.

These various studies have provoked widespread comment. It is not the fact that allergy may be absent in the presence of calcified lesions that is surprising, but that this may occur so frequently. Failure of reaction in the presence of calcified nodules is an old observation familiar to all workers in the field. In passing, it may be noted that in the first article published on the use of the purified protein derivative of tuberculin certain cases with pulmonary calcification were recorded, with failure of reaction either to this type of tuberculin or old tuberculin.

Most investigators in the past interpreted these cases as illustrations of obsolete infection, and there is increasing reason to accept this explanation. Specific examples with calcification, once positive and subsequently of lowered sensitivity or even negative to tuberculin, have been frequently recorded. A plausible explanation of the waning of allergy is to be found in reports of the sterility of most of the old calcareous foci of primary infection.

ALLERGY AND RECOVERY

More direct and significant evidence, however, on the waning of allergy with recovery from active lesions of tuberculosis is available in the records of BCG vaccination. Hundreds of thousands of human beings have been deliberately inoculated with controlled dosage of the attenuated but living BCG, and careful records have been kept of the intensity of the tuberculin reaction in relation to the course of the infection set up. In practically all of those infected intracutaneously with 0.15 mg. BCG or more, the reaction becomes positive in a few weeks. After reaching a period of maximum intensity it then tends to wane, and becomes negative after twelve months.

In the light of these observations of complete healing with eventual sterility of spontaneous human lesions, on the one hand, and decrescence and disappearance of the allergy produced by artificial human infection on the other; it would not be surprising if the tuberculin reaction eventually became negative in *all* of the cases of calcified primary lesions, if no further infection occurred. Indeed there is good reason to believe that in many cases of postive tuberculin reaction in the presence of calcified foci of tuberculous infection, the reaction is positive not because of the presence of the calcified lesion, but because of a later superinfection.

With the general decline of tuberculosis in the community, with corresponding lessening opportunity for reinfection, it is only to be expected that an increasing number of non-reacting cases with calcification will be found. It is well to keep the fact in mind that the calcified lesions discovered in any survey today represent not the index of tuberculous infection of the present period, but the remains of tuberculous infection in the past.

Moreover, there is still room for doubt that all the lesions commonly diagnosed as calcified nodules of primary tuberculosis are really tuberculous. Particularly in a community where calcifications are present in half of the adolescent population, as in certain of the regions studied by Lumsden and Gass and their colleagues, it is pertinent to inquire if there could

be any other cause than tuberculosis for the calcifications found.

ANERGY

Anergy in the presence of active tuberculosis of the primary or "childhood" type has been less frequently recorded and in some cases merely represents delay in the appearance of allergy. It was pointed out long ago that X-ray evidence of developing primary tuberculous infiltration of the lung may precede the development of a positive reaction. Anergy in the presence of well established lesions believed to be tuberculous is subject to much uncertainty, because of the difficulty in proving the diagnosis of primary tuberculous infection in these cases. The shadow itself is not distinctive, and it is the course of the lesion rather than its character, as seen in the X-ray film, that is important. Infiltrations that disappear are apt to be of pyogenic origin; those that persist are probably tuberculosis. Most of the reported cases of anergy in the presence of active primary tuberculosis have not been given the benefit of a time trial. A diagnosis based on persistence of the infiltration, is still subject to much question, for increasing understanding is bringing to light other causes of such infiltrations, such as unresolved pyogenic infections, bronchiectasis, etc. In brief, in a case of tuberculin anergy in the presence of supposed active primary tuberculosis, the burden of proof is on the diagnosis of tuberculosis.

As to the necessity of a reliable tuberculin there can be no argument. It is true and has been known for years that the various preparations of old tuberculin on the market vary greatly in their capacity to elicit reaction. It was this fact that led to the search for a substance of specificity, stability and constant potency, that could be substituted for the highly variable old tuberculins in use. It is hoped that that purified protein derivative of tuberculin will fulfill this need.

TUBERCULIN IN CASE-FINDING

For present purposes a distinction must be drawn between tuberculin-X-ray surveys for the separate purposes of determining the infection index regardless of morbidity, and tuberculosis case-finding. No serious doubt has been expressed over the value of tuberculin as a mechanism for detecting ordinary cases of pulmonary tuberculosis. The studies cited, do not deal with this subject. On the other hand, studies of the tuberculin reaction covering more than 30 years, show that the overwhelming majority of patients with frank tuberculosis are positive to tuberculin; that they react to small doses and to most of the many types of tuberculin on the market. Clinical disease has not infrequently been observed to develop with alarming rapidity after the development of a positive tuberculin reaction, while there is no proven record of its development in the absence of a positive reaction.

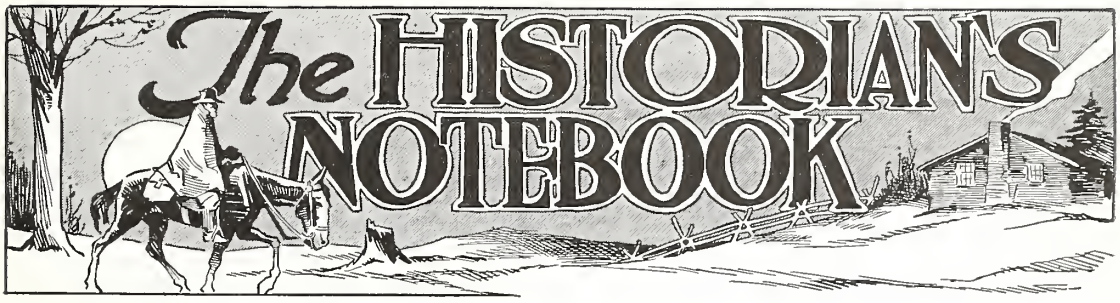
In the light of this experience no reason is apparent to depart from the present established custom of using tuberculin in case-finding programs.

On the other hand, good reason has been given for pause in our efforts to determine epidemiological indices of the amount of infection until more knowledge is obtained. The concept of infection that is adopted will have to meet the issue of existing as opposed to obsolete invasion by tuberle bacilli. From a practical standpoint it seems doubtful if there is nearly as much significance in determining how many ever have been infected by tubercle bacilli, as in finding how many harbor bacilli at the moment. Whether this can be done or not remains to be seen.—Esmond R. Long, M.D., Amer. Rev. of Tuber., Vol. XXXIX, No. 4, Apr., 1939.

Vitamin C Allergy

Allergy and Anaphylaxis. Among the most interesting recent contributions to the knowledge of vitamin C is its identification in large concentrations in the various endocrine glands, and especially in the adrenal. This gland contains a larger concentration of the vitamin than any other organ in the body. In the resting state the cortex of the gland has stronger reducing capacity but after anaphylactic shock, anger, ether or chloroform anesthesia or any emotional reactions that entail an increased secretion of adrenalin, the medulla showed greater reducing power. This reducing power has been shown to be due chiefly to the presence of reduced cevitamic acid. These observations were suggestive of intimate relationship between the physiology of the adrenal gland and vitamin C, possibly in the mechanism of adrenalin secretion.

Do the conditions that are benefited by adrenalin, such as anaphylaxis and allergic diseases, have any definite relation to vitamin C nutrition? Wilkinson and Ashford found their three cases of Addison's disease deficient in cevitamic acid, and suggest a possible relationship between the pigmentation in this disease and the lack of vitamin C. It has been mentioned before that vitamin C has been shown to have some protective effect on the guinea pig against tuberculin injections. Those animals dying from tuberculin showed depletion of reducing substance in the adrenals. Cormia claimed that vitamin C deficient guinea pigs showed more intense reaction to arsphenamine than did the normal controls.—M. A. Spellberg, M.D., Chicago; Ill. Med. Jr., Vol. 76, No. 1, July, 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early History of Medicine in Hamilton

PART II.

ALTA HARVEY HEISER

MEDICAL ADVANCEMENT AFTER 1820

DURING the 1820's, the medical profession took great strides in advancement. A medical college headed by Dr. Daniel Drake was established in Cincinnati in 1819. Young men from all over the state and from other states came to listen to the lectures which, with a little study under a practicing physician, would qualify them to be examined by their district censors.

Ohio was divided into medical districts at an early date. In 1811, Dr. Daniel Millikin attended the meeting of the First District society, held in Cincinnati, and was examined by the censors, who at that time were Dr. Daniel Drake, Dr. Richard Allison and Dr. Joseph Canby (the latter of Lebanon). Doctor Millikin's certificate received at this time is the proud possession of his granddaughters, Rosalie and Lillian Millikin.

Butler and Preble counties formed the Second Medical District. In 1824, a district society was formed with Dr. Daniel Millikin appointed president. Doctor Dunlavy and Doctor Woolsey were on the board of five censors. Dr. R. B. Millikin, Dr. Samuel Woods, Doctor Richey, Doctor Proudfit and Doctor Baker were other Hamilton doctors among the charter members. The initiation fee was $2 and the annual assessment was fifty cents. Doctor Dunlavy lectured at the second meeting.

FIRST ONE EXAMINED

Doctor Baker was the first man examined by the Second District censors, and was promised his license as soon as the society could secure a seal with which to stamp it! John Yeaman passed the examination the next year, and immediately found a place in Dr. Daniel Millikin's office. Doctor Millikin weighed 250 pounds. This made it difficult for him to travel, and he needed a rest from some of his responsibilities. Two years later, Doctor Yeaman opened his own office in Rossville.

In 1820, the combined population of Hamilton and Rossville was 660. It increased to 1700 during the following decade. When Doctor Yeaman entered the profession, there were already six doctors in the two villages. Seven made a good many, considering that Oxford, Trenton, Venice and other near by villages were also well supplied with doctors. This may account for the fact that no new doctors came to Hamilton until 1831.

Apparently no branch of the profession was being neglected. In 1827, Abram I. Chittenden, a prominent citizen of Oxford but not listed as an M.D., started a branch school of a New York institute for correcting impediments of speech. He guaranteed to cure all cases in which there was no malformation of the organs of speech, and asked the patronage of the people in Hamilton. It is to be greatly regretted that no report may be given of his work.

SUBJECT OF TAXATION

We must not leave the 1820's without paying due attention to the subject of taxation. Late in 1826 there was great excitement in Hamilton,

The Author

● **Mrs. Heiser, Hamilton, Ohio, is a member of the Ohio State Archaeological and Historical Society; the Butler County Historical Society; author of a series of historical sketches of Butler County, and reprinted herewith through the courtesy of the Hamilton Journal-News.**

as in other parts of the state, concerning the professional tax. This was declared oppressive, unjust and unconstitutional by the "gentlemen of the pill and long robe". The matter was taken to the supreme court and the professionals refused to pay their taxes until some decision was reached.

The newspapers give no explanation as to the amount of the tax nor the result of court action. Curiosity drives us to Ohio state records to see what may be learned. On February 7, 1825, a law was passed by the state legislature to tax lawyers and physicians from $5 to $50, after they had been in practice two years. This law went into effect on March 1, 1826. The wheels of justice moved slowly in those days, or at least it took a long time to decide what was just or unjust.

This law was radically changed on February 22, 1830. The assessors were to list the professionals and report to the commissioners. In June of each year, the commissioners were to estimate the respective incomes of the physicians and lawyers and tax them not over $5 a year for state purposes.

As a revenue producer the tax was said to be of little consequence, but it proved invaluable as a registration tax. It was learned, to a degree never before known, how many doctors and lawyers there were in Ohio. The law was tested in 1831, by James W. Gazlay, a Cincinnati lawyer, and was held constitutional. It was finally repealed when a new set of laws was made for the state in 1851.

This is as near as we come to an official report of this troublesome tax. There are found, however, personal tax receipts of professional men in Hamilton. These add some information without explaining anything. In 1836, $5 was the amount paid for the professional tax. In 1837 it was $4. This dropped to $2 in 1841 and went back up to $4 in 1844.

HAMILTON'S FIRST DENTAL SERVICE IN 1831

The 1830's brought to Hamilton a score or more new doctors, several new drug stores and the very first dentists. The first dentist's advertisement to be found is that of Thomas Enyeart in 1831. Not only could he extract teeth but he kept on hand a supply of "gold foil, silver do and tin do" for plugging teeth. He had other accomplishments than those of a first class dentist, for he made cork legs with knee, ankle and foot joints and springs, to answer all purposes. In 1837, he was still practicing in Rossville.

Another dentist made his advent in Hamilton a few months after Mr. Enyeart opened his office. He hailed from Pittsburgh, and gave his charges as follows: Artificial teeth, $1 each; natural teeth, $3 each; porcelain teeth, $5 each; cleaning teeth, 50 cents; gold plugging, $1; silver plugging, 50 cents. He stopped at Blair's hotel, but tarried not longer than six weeks. When he left, in the night, there were many merchants distressed at his departure, as he had patronized them freely but forgot to pay his bills. He gave his name as John Ambrose, but this was not his real name. He was described as six feet tall, with a fair complexion and wore a hat made by James Boal, a brown coat, drab pataloons and a dark vest with buttons made of five and ten cent pieces.

MECHANICAL GENIUS

Dr. Samuel Woods, who moved from Hamilton to Oxford in 1824, was remarkable for his mechanical genius. Care of the teeth had been a part of the work of the regular practitioner. As dentistry began to attract attention, Doctor Woods became deeply interested, because it offered a fine reason for him to try his skill at making dental instruments. His exhibit at the first fair held by the Butler County Agricultural Society, in 1831, won for him a premium, which he immediately donated to the society.

However, the praise and encouragement he received because of the exhibit, led him to return to Hamilton. He bought a house near the northwest corner of Front and Boudinot (B and Park) streets, and advertised as a surgeon dentist. He treated diseases of the teeth and gums which caused unpleasant breath, headache or dispepsia. He removed troublesome or aching teeth or snags with ease. The artificial teeth he set could not be distinguished from natural ones, and his instruments offered a test of his workmanship. Every operation was ensured to produce the desired effect or the entire compensation (always small) was returned—so said his public notices.

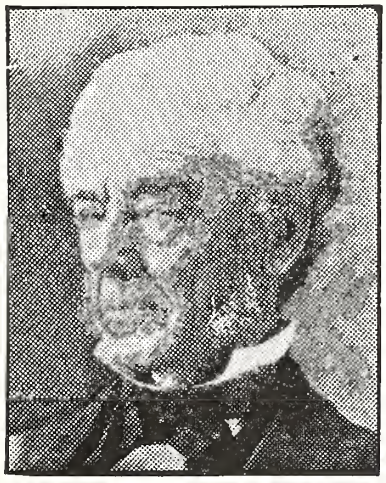
Doctor Woods gave further vent to his mechanical inclinations by making and mending clocks and watches, for which purpose he paid the highest prices for old gold and silver.

"PLUG TEETH"

Dr. I. Ingles opened a dental office at Blairs hotel in 1836. He probably had left town before the summer of 1837, when Mr. Powell, an "operative dentist", was at Blair's, and expressed a willingness to attend ladies in their homes. Two years later, J. C. Ross was at Blair's prepared to insert or plug teeth.

Hamilton grew rapidly after the opening of the Miami canal. Young men came to the leading doctors for instruction. In 1828, Richard Brownell and Cyrus Falconer began to study with Dr. R. B. Millikin. Doctor Brownell finished his course and was taken into partnership for a short time before Doctor Millikin and Doctor Hunt went into partnershp, in 1831. Young Falconer had previously attended Miami university and during 1830 and 1831 he took a course at

the Ohio Medical college in Cincinnati. In 1832 he passed the examination given by the censors of the Second District Medical Society and opened an office in Hamilton. After Doctor Dunlavy gave up his practice, Doctor Rigdon took Doctor Falconer into partnership.



DR. CYRUS FALCONER

From 1833 to 1837 new doctors in Hamilton were Jacob Hittel, H. H. Sherwood, William Kelley, S. Walker, G. W. Riddell, Joel B. McFarland, S. H. Witham, G. F. Eichelberger, Talbott, Samuel Latta, Robert Stall, J. Hannon, Symmes, Squier Littell and L. Cooper. Doctor Riddell, in 1835, opened an office on Main street, Rossville, "near McCleary's new dwelling". In 1837, Doctor Hannon was "one door north of McCleary's".

Doctor McFarland was in partnership two years with his cousin, Dr. Daniel Millikin. In 1837, he and Dr. Robert Stall opened an office on High street, two doors east of the bank, where Doctor Eichelberger had his office in 1836. Doctor McFarland soon bought out Doctor Stall and continued alone.

DRAWING LESSONS

Dr. S. S. Walker was in Hamilton at an early date although 1835 is the earliest newspaper date given. He was an artist and deserves special mention for having given young George White of Oxford his first instructions in portrait painting. In 1843-44, Doctor Walker was on Basin street just east of Doctor Rigdon's office. He gave lessons in drawing and painting—and sold picture frames, two for $10! He had given up the practice of medicine, at least he no longer called himself a doctor. He must have been a true artist, as he could not make a living at this profession and took on a line of merchandise.

In 1837, Dr. L. Cooper was opposite the Falconer house in Rossville. Doctor Littell was one of the three nephews raised by the pioneer doctor of the same name at Trenton, Ohio. After practicing a few years in Hamilton, young Doctor Littell joined his older brother, Eliakim, in Philadelphia. Here he made a name for himself with his medical publications. Eliakim was publishing "The Museum" in Philadelphia, but he went to Boston and started "The Living Age". This was compiled from European publications and was a valuable magazine, found in all the public libraries.

From the day Doctor Littell came to Hamilton until he returned to his old home in Pennsylvania, after 32 years of practice here, he was one of Hamilton's foremost citizens. He came in 1833 and bought property on High street near the middle of the block facing the public square, where he had his office and drug store. Many Germans were locating in Hamilton about that time, and he built up a splendid practice among them. He had a shrewd eye for business. His success in real estate, added to the income from his medical practice, made him one of the most financially secure men in the county, even during the years of hard times.

Photograph of Dr. Cyrus Falconer from the files of the *Hamilton Journal-News*.

Medical Librarian Retires

Because of ill health, John Charles Harding, well known to three generations of Cleveland physicians, tendered his resignation as Librarian of the Cleveland Medical Library Association to the Trustees who accepted it July 10 with resolutions of appreciation for his 40 years of devoted service. Harding was born in Devonshire, England, and followed the seas until he was 35 years old. He and his wife came to Cleveland in 1898, where Mrs. Harding was the first librarian of the Cleveland Medical Library Association when its slender collection of books was housed in an old residence at 2318 Prospect Avenue. At first Mrs. Harding was the librarian and Harding, who was secretary to Dr. George W. Crile, was assistant, serving during the evening hours, when the library was kept open for the benefit of medical students. To them he was affectionately known as "Pop" Harding.

In 1906 Harding became librarian, and he took part in activities which resulted in carefully selecting and building up a collection of over 53,000 volumes. He saw the library expand its quarters on Prospect Avenue by additions and finally move to the monumental Dudley P. Allen Memorial Building on Euclid Avenue across from Severance Hall. Harding was well known nationally in medical library circles, and served in the American Medical Library Association as editor of its Bulletin. His future home will be San Diego, California.

Proceedings of the Council

Dates May 14, 15, 16 for 1940 Annual Meeting at Netherland Plaza Hotel, Cincinnati, Selected; Sub-Committees Appointed; Budget Revised; Important Questions Considered at July 9 Meeting

REGULAR meeting of The Council of the Ohio State Medical Association was held at the State Headquarters Office, Sunday, July 9, 1939. The following were in attendance: President Smith, President-Elect Skipp, Past-President Hein, Treasurer Beer, Councilors Hogue, Klotz, Rutledge, Goehring, Swan, Seiler, Sherburne and Burley; Dr. Forman, Editor of *The Journal;* Dr. Upham and Dr. Platter; Drs. Brush, Kiely and Steinke, delegates to the A.M.A.; Executive Secretary Nelson, Assistant Executive Secretary Saville and Director of Public Education Aszling.

On **motion** by Dr. Seiler, seconded by Dr. Klotz and **carried**, the minutes of the last meeting of The Council, held on May 2, 1939, were **approved** as published in the June, 1939, issue of *The Journal.*

Special Committees—After introducing the new members of The Council and Mr. Aszling, Director of the Bureau of Public Education, and welcoming officially to the meeting the three delegates to the A.M.A., Dr. Smith announced appointments to the **Committee on Auditing and Appropriations** as follows: Dr. C. C. Sherburne, chairman; Dr. E. J. McCormick and Dr. Edgar P. McNamee. On **motion** by Dr. Klotz, seconded by Dr. Seiler and **carried**, the appointments were confirmed.

On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, the President was authorized to appoint a **Committee on Poor Relief** for the ensuing year. Subsequently, Dr. Smith appointed the following to that committee: Dr. W. K. Stewart, Youngstown, chairman; Dr. Fowler B. Roberts, Akron; Dr. F. S. Van Dyke, Canton; Dr. W. L. Denny, Cambridge; Dr. R. N. Whitehead, Bowling Green; Dr. E. O. Swartz, Cincinnati; Dr. Dow Allard, Portsmouth; Dr. E. B. Gillette, Toledo; Dr. R. S. Binkley, Dayton; and Dr. F. C. Callaway, Marysville. On **motion** by Dr. Hogue, seconded by Dr. Klotz and **carried**, the appointments were confirmed by The Council.

On **motion** by Dr. Hein, seconded by Dr. Skipp and **carried**, the President was authorized to appoint a **Coordinating Committee** for the ensuing year to carry on the activities of the previous Coordinating Committee which expired at the time of the 1939 Annual Meeting in Toledo. Dr. Smith announced that he would present the personnel of that committee for approval of The Council at its next meeting.

Membership—The following membership statistics were presented: Total membership as of July 8, 1939, was 6,153, compared to 5,881 on the same date a year ago and to 6,128 as of December 31, 1938.

Reports by Members of The Council—Members of The Council presented reports on visits to and activities in their respective county medical societies. President Smith called the attention of the Councilors to the fact that the State Association had not provided a subsidy for district meetings for 1939 and requested them to transmit this information to officers of the district societies.

ANNUAL MEETING

Comments on 1939 Meeting—There was an informal discussion regarding the 1939 meeting program and set-up. Members of The Council expressed themselves as believing that the 1939 meeting in Toledo was one of the best ever held by the Association, congratulating the Toledo Academy of Medicine on the splendid handling of local arrangements and expressing appreciation for the hospitality extended the membership of the State Association.

Financial Report—Dr. Skipp, on behalf of the Committee on Auditing and Appropriations, presented a financial report on the 1939 Annual Meeting. The report showed receipts from sale of exhibit space $3,487.50 and total expenditures $2,719.61, leaving a balance of $767.89. On **motion** by Dr. Klotz, seconded by Dr. Seiler and **carried**, the report was approved.

Time and Place of 1940 Meeting—A report on a meeting of the Committee on Scientific Work, held on Sunday, June 25, 1939, in Columbus, was submitted. The report recommended that the 1940 Annual Meeting be held during the week of May 13 at the Netherland Plaza Hotel. On **motion** by Dr. Hogue, seconded by Dr. Swan and **carried**, the recommendations of the committee were approved.

Tentative Annual Meeting Set-Up—A suggested set-up for the 1940 Annual Meeting was submitted by the Committee on Scientific Work. The committee recommended a two and one-half days' meeting to start Tuesday noon, May 14, and close Thursday evening, May 16. On **motion** by Dr. Hogue, seconded by Dr. Seiler and **carried**, the recommendation for a two and one-half days' meeting was approved. The committee was instructed to endeavor to arrange for sessions of the House of Delegates on consecutive days. On

motion by Dr. Hogue, seconded by Dr. Seiler and **carried**, the recommendation of the committee for revival of the Scientific Exhibit, to be known as "Educational Exhibit", was approved. That recommendation provided that exhibitors would be selected by the Committee on Scientific Work, and that on an experimental basis the technical and educational exhibits would be held in the same hall, in an effort to stimulate interest and attendance in both exhibits. On **motion** by Dr. Hogue, seconded by Dr. Seiler and **carried**, the complete report of the committee, as amended by Council, was approved.

REPORT OF COMMITTEE ON PUBLIC RELATIONS

Dr. Lowe, reporting for the Committee on Public Relations, requested confirmation by The Council of the following appointments to the Sub-Committee on Legislation and the Sub-Committee on Workmen's Compensation:

Sub-Committee on Legislation—Dr. D. C. Houser, Urbana, chairman; Dr. Emil R. Swepston, Cincinnati; Dr. R. M. Watkins, Cleveland; Dr. I. B. Harris, Columbus; Dr. J. R. Shoemaker, Cuyahoga Falls; Dr. D. J. Slosser, Defiance; Dr. J. W. Schoolnic, East Liverpool; Dr. A. Howard Smith, Marietta; Dr. Carl Sawyer, Marion; Dr. Geo. F. Linn, Norwalk; Dr. O. J. Walker, Youngstown; Dr. Jay W. Calhoon, Uhrichsville; Dr. H. M. Lowell, Hamilton; Dr. A. A. Brindley, Toledo; Dr. Clyde Fitch, Portsmouth; and Dr. C. E. Holzer, Gallipolis.

On **motion** by Dr. Sherburne, seconded by Dr. Seiler and **carried**, the foregoing appointments were approved.

Sub-Committee on Workmen's Compensation—Dr. D. B. Lowe, Akron, chairman; Dr. D. M. Glover, Cleveland; Dr. Drew L. Davies, Columbus; Dr. Malcolm Cook, Hamilton; Dr. Robert L. Eastman, Mt. Vernon; Dr. J. Craig Bowman, Upper Sandusky; and Dr. John H. Skavlem, Cincinnati.

On **motion** by Dr. Swan, seconded by Dr. Sherburne and **carried**, the foregoing appointments were approved.

Miscellaneous—A complete report on transactions of the Committee on Public Relations and Economics, at a meeting on the preceding evening, was presented by Dr. Lowe. On **motion** by Dr. Sherburne, seconded by Dr. Seiler and **carried**, the action and recommendations of the committee on the numerous items considered were approved by The Council.

Sub-Committee on Workmen's Compensation—A report on a meeting of the Sub-Committee on Workmen's Compensation, held in Columbus on June 29, 1939, was presented by Dr. Lowe. On **motion** by Dr. Hein, seconded by Dr. Sherburne and **carried**, the report as a whole was approved, including the following specific recommendations and statements of policy:

That Rule No. 7 of the State Industrial Commission, relating to the necessity for obtaining special authorization for the use of physical therapy, not be modified to exempt dermatologists. It was pointed out by the committee that the present ruling is necessary to prevent abuses in the use of physical therapy generally in Industrial Commission cases; that the rule does not work a hardship on dermatologists, as it does not prohibit the Commission from paying for physical therapy in emergencies or for the first several treatments; and that considerable confusion would be created by making exceptions for one particular group of specialists.

That the fee schedule of the State Industrial Commission, dealing with payment for the removal of a foreign body from the eye, be modified to provide for the same fee for this procedure for all physicians, whether general practitioners or specialists, and that such fee be $3.00.

That a more satisfactory procedure in the handling of C-3 (medical only) Industrial Commission blanks be worked out so as to insure prompt filing of C-3 blanks by employers. The committee reported that it expected to have definite recommendations on this matter for presentation to the Commission in the Fall, when a joint meeting with the Commission is contemplated.

That the practice of permitting employers to see medical reports on C-3 blanks before such blanks are submitted to the Commission is not objectionable and is not a violation of the principle of confidential communications, inasmuch as the employer is one of the main parties involved in every Workmen's Compensation claim, and because such information must be disclosed on blanks furnished by the Commission to insure proper adjudication of the claim before the Commission. In this connection the committee also expressed itself as believing that a question raised concerning the wording of the waiver clause on medical blanks is a legal question and not a medical question and, therefore, outside the jurisdiction of the committee.

LEGISLATIVE REVIEW

A report by the Executive Secretary on the recent session of the Ninety-Third Ohio General Assembly, which had been approved on the previous evening by the Committee on Public Relations and Economics, was presented. Reference was made to the complete legislative review published in the July issue of *The Ohio State Medical Journal*, pages 766-767.

On **motion** by Dr. Sherburne, seconded by Dr. Hogue, and **carried**, The Council voiced sincere appreciation for the splendid work done during the legislative session by the Committee on Public Relations and Economics, the Sub-Com-

mittee on Legislation, and the Headquarters Office staff, and gave a special vote of appreciation and confidence to Drs. Upham and Platter for their volunteer assistance on legislative matters.

COMMITTEE ON EDUCATION

A report from Dr. Clyde L. Cummer, chairman of the Committee on Education, on the activities of that committee was read. The committee submitted for confirmation by The Council the following appointees for the Sub-Committee on Public Health Education and the Sub-Committee on Regional Postgraduate Lectures for the ensuing year:

Sub-Committee on Public Health Education—Dr. Carl A. Wilzbach, Cincinnati, chairman; Dr. V. C. Rowland, Cleveland; Dr. James A. Doull, Cleveland; Dr. F. L. Shively, Dayton; Dr. Edward King, Cincinnati; Dr. C. I. Stephen, Ansonia; Dr. M. D. Shilling, Ashland; Dr. R. K. Ramsayer, Canton; Dr. C. E. Hufford, Toledo; and Dr. L. D. Bonar, Mansfield.

Sub-Committee on Regional Postgraduate Lectures—Dr. Clyde L. Cummer, Cleveland, chairman; Dr. S. H. Ashmun, Dayton, vice chairman; Dr. James M. Pierce, Cincinnati; Dr. Cecil Striker, Cincinnati; Dr. Louis N. Jentgen, Columbus; Dr. Robt. T. Allison, Jr., Akron; Dr. R. O. Egeberg, Cleveland; Dr. H. M. Clodfelter, Columbus; Dr. John Noll, Youngstown; Dr. J. L. Webb, Nelsonville; Dr. C. L. Barrett, Bellefontaine; and Dr. D. J. Kindel, Cincinnati.

On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, the foregoing recommended appointments were confirmed. The report stated that the Committee on Education had decided not to appoint a Sub-Committee on District Meetings and a Sub-Committee on Speakers Bureau for the ensuing year. It was pointed out that the activities of the Speakers Bureau will be handled directly by the main committee.

Physical Examinations—The following report and recommendations of the Sub-Committee on Public Health Education were approved by The Council on **motion** by Dr. Klotz, seconded by Dr. Beer and **carried**:

"At a meeting of the Sub-Committee on Public Health Education held on April 16, 1939, a request from the Ohio branch of the American Academy of Pediatrics for the cooperation of the Ohio State Medical Association, through the Sub-Committee on Public Health Education and the component county medical societies of the Association in a program of education relative to the value of periodic physical examinations for all adults in close contact with children, was discussed.

"At the request of the sub-committee, the Executive Secretary obtained from the secretary of the Medical Society of the County of Westchester, New York, a detailed memorandum concerning an educational program of this character being conducted by the medical society in cooperation with the local branch of the American Academy of Pediatrics.

"After reviewing the material received from Westchester County, New York, your sub-committee believes that such a program of education should be initiated in Ohio. The opinion of the sub-committee has been confirmed by the Committee on Education. Therefore, the following recommendation is presented for the consideration of and action by The Council:

"That The Council authorize the Sub-Committee on Public Health Education to work out with the Ohio branch of the American Academy of Pediatrics a cooperative, educational program with respect to periodic examinations of adults in contact with children; such program to be carried on in the respective counties in cooperation with the county medical society, and only in those counties where the program has the approval of the county medical society.

"Efforts to stimulate interest among the county medical societies and proper steps to assist such societies in carrying on the program locally would be undertaken by the Sub-Committee on Public Health Education, assisted by the State Headquarters Office."

Postgraduate Lectures—Mr. Saville reported for the Sub-Committee on Regional Postgraduate Lectures regarding the plans and arrangements for the Fall series of lectures in five regions. On **motion** by Dr. Sherburne, seconded by Dr. Swan and **carried**, the report and recommendations were approved.

REPORT OF JUDICIAL AND PROFESSIONAL RELATIONS COMMITTEE

A report from Dr. L. L. Bigelow, Columbus, chairman of the Judicial and Professional Relations Committee, was presented for consideration by The Council. The committee recommended approval by The Council of proposed amendments to Article III of the constitution of the Montgomery County Medical Society, adopted by that society on May 19, 1939; and extensive revisions in the constitution and by-laws of the Stark County Medical Society, adopted on May 24, 1939, by that society. On **motion** by Dr. Seiler, seconded by Dr. Swan and **carried**, the foregoing recommendation of the committee was approved and the Executive Secretary was instructed to inform the Montgomery County Medical Society and the Stark County Medical Society of The Council's action.

The committee reported progress in attempting to solve the question of solicitation by an Ohio hospital of indigent patients in adjoining counties, which had been referred to the committee for investigation. The report stated that a conference of all parties involved is being planned for the early Fall.

On **motion** by Dr. Klotz, seconded by Dr. Sherburne and **carried**, the report of the committee as a whole was approved.

BUREAU OF PUBLIC EDUCATION

The Executive Secretary reported on the establishment of the new Bureau of Public Educa-

tion, its activities to date and its proposed program of activities under the direction of Mr. Aszling. (See pages 877-878 this issue for content of report.)

Budget Revised—At this time, Dr. Skipp, retiring chairman of the Committee on Auditing and Appropriations, presented for consideration of The Council a revised budget for the Association for the balance of the year, in order to adequately finance the Bureau of Public Education and its program. Dr. Skipp pointed out that part of the reserve fund of the Association would be used to underwrite the revised budget and that beginning January 1, 1940, when the $2.00 increase in annual dues takes effect, the current income of the Association would be adequate to take care of the new public education program. The following revised budget for 1939, including additional amounts for such educational activities, was approved, on **motion** by Dr. Seiler, seconded by Dr. Klotz and **carried:**

Ohio State Medical Journal	$13,000.00
Executive Secretary, Salary	6,000.00
Executive Secretary, Expenses	800.00
Asst. Executive Secretary, Salary	4,600.00
Asst. Executive Secretary, Expenses	600.00
President	400.00
Treasurer	300.00
Councilor Expense	900.00
Annual Meeting	3,000.00
Committee on Auditing and Appropriations	100.00
Bureau of Public Education	3,200.00
Committee on Education	3,100.00
Miscellaneous Committee Expense	500.00
Stationery and Supplies	1,200.00
Postage, Telephone and Telegraph	2,000.00
Rent, Insurance, Bonding	2,540.00
Stenographers	2,580.00
A.M.A. Delegates	300.00
Total	$45,120.00

MISCELLLANEOUS TRANSACTIONS

Woman's Auxiliary—Resolution C, adopted by the House of Delegates at the 1939 Annual Meeting, directing The Council to devise plans and procedure for the organization of a Woman's Auxiliary in Ohio, was considered. On **motion** by Dr. Klotz, seconded by Dr. Beer and **carried**, the President was authorized to appoint a special committee of three members of The Council to carry out the instructions of the House of Delegates. President Smith appointed as members of this committee, Dr. D. W. Hogue, chairman; Dr. O. P. Klotz and Dr. R. L. Rutledge.

Medical Care of Indigents—Resolution D, adopted by the House of Delegates at the 1939 Annual Meeting, directing The Council to study for medical care of indigents injured in motor vehicle accidents and report its findings to the the question of providing a method of payment House of Delegates at the 1940 Annual Meeting, was discussed. On **motion** by Dr. Hogue, seconded by Dr. Sherburne and **carried**, the question was referred to the Committee on Public Relations and Economics for investigation and a subsequent report to The Council.

A.M.A. Meeting—Reports on the recent session of the American Medical Association at St. Louis were made by Dr. Hein and Dr. Steinke, two of Ohio's seven delegates to the meeting.

Wagner Bill—A report on his appearance before the sub-committee of the United States Senate holding hearings on the Wagner Bill was made by Dr. Smith who officially represented the Ohio State Medical Association at such hearings. Recent developments regarding the Wagner Bill and other Federal legislation were reported by the Executive Secretary.

Ethical Problem—A communication from a county society secretary, asking whether or not it is ethical for a member of the State Association to become a member of the faculty of an institution of massage and physical therapy, was presented for Council consideration. On **motion** by Dr. Sherburne, seconded by Dr. Hogue and **carried**, the communication was referred to the Judicial and Professional Relations Committee for study and a subsequent report to The Council.

Pharmacopeia Convention—The Executive Secretary was instructed to communicate with the deans of Ohio's medical schools relative to the selection of delegates from Ohio to the Convention for the Revision of the Pharmacopeia, to be held in Washington in 1940.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Open New Offices

Physicians who have recently established new locations in Ohio include the following: Dr. Louis W. Ladd, Jr., Cleveland; Dr. Harvey D. Wright, West Jefferson; Dr. Lyle C. Franz, Ripley; Dr. Benjamin Pilloff, Uhrichsville; Dr. Ralph H. Leyrer, Hamilton; Dr. H. F. Wherley, Coshocton; Dr. James Rose, Sabina; Dr. Howard Foster, Gallipolis; Dr. Kenneth F. Hausfeld, Port Clinton; Dr. W. E. Martin, Columbus Grove; Dr. H. H. Murphy, Barnesville; Dr. Dwight C. Pettay, Cadiz; Dr. Earl H. Kirk, Conneaut; Dr. J. W. Young, Steubenville; Dr. Malcolm E. Switzer, Galion; Dr. Carl T. Doeing, Springfield; Dr. B. R. Smith, Eaton; Dr. John E. Schoenling, Cleves; Dr. Nathan Arnonoff, Leipsic; Dr. Weldon Diller, Rawson.

Plans for Second Series of Postgraduate Lectures This Fall Being Completed; Centers and Dates Selected

THE second series of the Ohio State Medical Association Regional Postgraduate Lectures will be presented in five sections of the state during the coming Fall and Winter. Seventy-eight counties are included, with regional centers in Findlay-Defiance, Chillicothe, Mansfield, Cambridge, and Troy. Six sessions will be held in each region, the first late in September. There will be two 45-minute lectures at each session. Speakers are being selected on the basis of their clinical experience, under instructions to stress diagnosis and treatment and to make their talks practical. Subjects to be discussed in the series are:

SUBJECTS SELECTED

1. Bleeding from the Uterus.
2. What Shall We Do for the Pregnant Woman with Syphilis?
3. Obstetrics in the Home.
4. Acute Surgical Conditions in Childhood.
5. Convulsions in Childhood.
6. The Deformities of Poliomyelitis Must Be Prevented.
7. Importance of Routine Rectal Examinations.
8. Helping the Public Reduce the Mortality of Acute Appendicitis.
9. Protecting the Heart of the Patient with High Blood Pressure.
10. How to Handle the Patient with Asthma.
11. Hints to the General Practitioner in the Handling of Acute Eye Conditions.
12. Present-Day Viewpoints on the Diagnosis and Treatment of Cancer.

TIME AND PLACE OF SESSIONS

Meeting places for the five regions, names of the local chairmen, dates of the six sessions and counties comprising each region, follow:

Region A. Sessions will be alternated between Findlay and Defiance. Dr. Lawrence Goodman, Findlay, and Dr. John U. Fauster, Jr., Defiance, co-chairmen. Thursday evenings, September 28, October 26 and November 23, Elks' Club, Findlay; October 12, November 9 and December 7, High School Auditorium, Defiance. Counties: Williams, Defiance, Paulding, Van Wert, Mercer, Fulton, Henry, Putnam, Allen, Auglaize, Lucas, Wood, Hancock, Hardin, Ottawa, Sandusky, Seneca and Wyandot.

Region B. Elks' Home, Chillicothe. Dr. Russell C. Bane, chairman. Thursday evenings, September 28; October 12, 26; November 9, 23, and December 7. Counties: Adams, Brown, Clermont, Clinton, Fairfield, Fayette, Franklin, Gallia, Highland, Hocking, Jackson, Lawrence, Meigs, Pickaway, Pike, Ross, Scioto and Vinton.

Region C. Mansfield-Leland Hotel, Mansfield. Dr. Mabel Emery, chairman. Wednesday evenings; September 20, October 4, 18; November 1, 15, and December 6. Counties: Ashland, Crawford, Delaware, Erie, Holmes, Huron, Knox, Lorain, Marion, Medina, Morrow, Richland and Wayne.

Region D. State Highway Patrol Barracks, Cambridge. Dr. O. R. Jones, chairman. Thursday evenings, September 28, October 12, 26, November 9, 23, and December 7. Counties: Athens, Belmont, Carroll, Columbiana, Coshocton, Guernsey, Harrison, Jefferson, Licking, Morgan, Monroe, Muskingum, Noble, Perry, Tuscarawas and Washington.

Region E. Elks' Club, Troy. Dr. Burton R. Hogle, chairman. Thursday evenings, September 28; October 12, 26; November 9, 23, and December 7. Counties: Butler, Champaign, Clark, Darke, Greene, Logan, Madison, Miami, Montgomery, Preble, Shelby, Union and Warren.

ALL MEMBERS ELIGIBLE TO ATTEND

All members of the State Association, regardless of location, are eligible to attend these sessions. For instance, if a member residing in a county included in Region E finds it more convenient to attend a session in Chillicothe than in Troy, he is welcome to attend the session in Troy, although his county may not be included in Region B. There will be no registration fee.

Arrangements for this important activity of the State Association are in charge of the Sub-Committee on Regional Postgraduate Lectures, consisting of Dr. Clyde L. Cummer, Cleveland, chairman; Dr. S. H. Ashmun, Dayton, vice-chairman; Dr. James M. Pierce, Cincinnati; Dr. Cecil Striker, Cincinnati; Dr. Louis N. Jentgen, Columbus; Dr. Robert T. Allison, Jr., Akron; Dr. R. O. Egeberg, Cleveland; Dr. H. M. Clodfelter, Columbus; Dr. John Noll, Youngstown; Dr. J. L. Webb, Nelsonville; Dr. C. L. Barrett, Bellefontaine, and Dr. D. J. Kindel, Cincinnati.

MORE DETAILS LATER

Officers of the State Association and the members of the Sub-Committee on Regional Postgraduate Lectures were gratified at the interest shown in the first course. Sessions were attended by 1,452 members and the total attendance in the five regions was 4,543. It is hoped that the second course will be even better attended.

Further details concerning the meetings will be published in subsequent issues of *The Journal*, and a copy of the program will be sent to every member of the State Association in the five regions.

Medical Care Given Definite Status in New Ohio Poor Relief Act; Local Administration is Centralized

THE new State Poor Relief Act (House Bill 675), enacted by the 93rd General Assembly, is now in effect. It makes a number of important and far-reaching changes in the old poor relief procedure. The following important points of the new act are based on interpretations by State Welfare Director Sherwood, the State Administrative Officer under the Act.

(1) The new act defines "poor relief" as "food, clothing, shelter and other commodities and services necessary for subsistence, or the means of securing such commodities and services, furnished at public expense to persons in their homes, or, in the case of homeless persons, in lodging houses or other suitable quarters". This means that state funds allocated to various local subdivisions by this act may be used for the purposes enumerated.

MEDICAL CARE DEFINED

(2) "Poor relief" may take the form of "work relief", "direct relief" or "medical care". **The act defines "medical care" as meaning "medicines and the services, wherever rendered, of a physician or surgeon or the emergency services of a dentist, furnished at public expense".**

(3) The definition of "poor relief" does not include hospitalization, burial and institutional care. **Such services must be administered by local officials under the provisions of Section 3476 and succeeding sections of the old poor relief statutes.** Also, the definition of "poor relief" does not include various forms of "public assistance" such as old age pensions, care of the blind and crippled, services for dependent children, etc. These services will continue to be administered under specific statutes.

AN IMPORTANT INTERPRETATION

(4) One of the most important points is that **"medical care" is given a definite status and put on an equality with "work relief" and "direct relief".** A recent interpretation of the act issued by the Division of Relief of the Department of Auditor of State, points out that the definition of "medical care" provides that physicians may be paid for services in the home, in the office or in the hospital and that the payment for such services is a legal expenditure under this new act. **The same interpretation states that a recipient of relief may receive "work relief", "direct relief" or "medical care" either separately or collectively. This would cover the so-called "needy indigent"—those who can provide some necessities for themselves but find themselves unable to provide "medical care".** Obviously, the determining factor in any instance will be the extent of funds available.

(5) The act provides that "poor relief" shall be dispensed on a budgetary basis, meaning that budgetary deficiencies will be figured and such deficiencies represent the extent to which a recipient may participate in relief commodities or services.

POWER OF TOWNSHIPS LIMITED

(6) From the standpoint of local administration relief, Section 2 of the act is especially significant because it establishes a new legal responsibility for the care of "poor relief" cases. Under the old Poor Relief Laws (Sections 3476, etc., of the General Code) the responsibility for caring for persons in need of "poor relief" was divided among the various local subdivisions—county, townships and cities. Under the new act, cities retain the same duties and responsibilities with regard to relief cases as assigned by Section 3476, etc., of the General Code, **but the county assumes certain cases which were formerly the responsibility of township trustees. All relief cases for which townships were formerly responsible, now become cases of the county local relief area, except hospitalization and burial services which still continue to be the responsibility of townships. In other words, townships will have no authority, in the future, for establishing any funds for relief purposes other than those for hospitalization and burial and will have no administrative functions over services included within the definition of "poor relief" except certain rather minor responsibilities which may be delegated to them by the county commissioners who are the administrative officials of the county relief area.** The county commissioners will be responsible for the administration of "poor relief" in the county relief area, including all territory outside of cities. Township trustees, on request, may be appointed by county commissioners as "agents" of the county relief authority within their townships, but in such cases they will act only as agents and their authority cannot extend beyond that granted to them in a resolution adopted by the county commissioners.

CENTRALIZATION PROVIDED

(7) The act contains a provision whereby a centralized county relief administration can be created. This could be done under the provision which permits a city or cities within a county to enter into an agreement with the county commis-

sioners whereby either the county relief administration or a city relief administration would administer relief on a county-wide basis. In any event, under the new act in each county there will be not more than two types of relief administration—county or city—townships being counted out of the picture entirely, except in cases where township trustees may become duly authorized agents of the county relief authority.

(8) The State Director of Public Welfare becomes the State Relief Director under the act. He is responsible for maintaining a degree of uniformity in the local relief programs and has the right to issue rules covering the administration of relief, to make examinations of local relief administrations and to allocate state funds. The State Director will have only general powers meaning that the chief responsibility for administration will rest with local authorities. A Board of Appeals is created, consisting of the Auditor of State, the Treasurer of State, and the Superintendent of the Budget, to which complaints relative to orders of the State Relief Director may be made.

DISTRIBUTION OF FUNDS

(9) A new method of distributing state funds is set up. It represents in effect a combination between the formula method and a method based upon net need. At the end of each month, each local relief authority (county or city) will report to the State Director the amount of lawful expenditures incurred for poor relief purposes during the month. These amounts will be combined into a total amount for the whole state. The state will then distribute to each of the local relief authorities, 50 per cent of the total obligation incurred by each, if the amount of such distribution does not exceed the monthly percentages of the total state appropriation which are set up in the act. If the monthly percentages are exceeded, local relief authorities will have to share on a pro rata basis. This provides for the matching of state funds by local relief authorities on a reimbursement basis.

ACTION BY MEDICAL SOCIETIES URGENT

In carrying on negotiations with local relief authorities, representatives of medical societies should keep in mind that the new state act **permits centralization of "poor relief", including "medical care", within a county if the various subdivisions can reach an agreement. If centralization can be accomplished, the medical society will have fewer agencies to deal with.** Therefore, medical societies might be wise to encourage the county and cities within the county to combine.

Another point which should be kept in mind is that the county commissioners will have broad discretion as to what activities should be given to township trustees. If the local medical society can present a proper method of handling medical care on a county-wide basis, in all probability many boards of county commissioners will be willing to give that method a whirl. At any rate, conferences should be held at once with county commissioners and representatives of the medical profession should request a right to sit in with county and city officials who are now endeavoring to work out a "poor relief" program under the terms of the new act. **The medical society should be prepared to offer a constructive, definite program.** If it does not do so, it may have to take a program formulated by the county commissioners or city officials which may be entirely unsatisfactory. **If possible, a program providing for free choice of physician with reimbursement on an agreed fee schedule and with proper checks and balances to prevent abuses should be proposed.**

The Ninety-Fourth Annual Meeting of the Ohio State Medical Association will be held at the Netherland Plaza Hotel, Cincinnati, Tuesday through Thursday, May 14-16, 1940.

Trips to the Altar

Recent marriages of Ohio physicians include the following: Miss Norma Fern Lodge, Youngstown, and Dr. Evan C. Fowler, Sebring; Miss Kathryn Lucille Risley, Columbus, and Dr. Curtis P. Artz, Jerome; Miss Henrietta Lee Cohen, East Palestine, and Dr. Allen L. Schaffer, Cleveland; Miss Jean Spellman, Kinsman, and Dr. Bayard M. Keller, Cuyahoga Falls; Miss Margaret Pahl, Columbus, and Dr. Herman Warrer, Plain City; Miss Margaret Anglin Smith and Dr. Myron E. Crawford, Cleveland; Miss Alice Janet Chapman, Middletown, and Dr. Thomas M. Edward, Cincinnati; Miss Margaret Wilson, St. Louis, Mo., and Dr. George I. Martin, Miamisburg; Dr. Mary Christine Gatewood, McConnelsville, and Dr. Marion G. Fisher, Youngstown; Miss Shirley Fay Burrell, Plymouth, Fla., and Dr. Paul C. Colegrove, Oberlin; Miss Ruth Orr and Dr. W. E. Hopkins, Summit Station; Miss Kathryn Lenora Herre, Niles, and Dr. Willard M. Rypkema, Cleveland; Miss Ruth Colwell and Dr. Gabriel E. DeCicco, Youngstown; Miss Carolyn M. Woodruff, Elyria, and Dr. Charles H. Whitacre, Cleveland; Miss Irene E. Merten, Elyria, and Dr. H. Dale Underwood, Cleveland; Mrs. Anna A. Ehrhart, Pittsburgh, Pa., and Dr. A. B. Tubbs, Cadiz; Miss Adeline Washing and Dr. William K. Zollinger, Piqua; Dr. Elizabeth Rowland, Gnadenhutten, and Charles Aplin, Uhrichsville; Miss Mary Rita Kearney, Toledo, and Dr. Edwin C. Swint, Fremont; Dr. Miriam Lora Hubbard, Mantau, and Dr. Robert E. Williams, Akron.

Purposes, Objectives and Contemplated Activities of New Bureau of Public Education; Suggestions Solicited

AIMS and objectives, accomplishments to date, and contemplated activities of the new Bureau of Public Education were reviewed for The Council at its meeting on July 9 by the Executive Secretary and Bureau Director Aszling.

This article, published for the information of the membership at large, is based on that report to The Council. It is the hope of Mr. Aszling to have the new Bureau in full swing by early Fall. Inasmuch as it is starting at scratch, the Bureau needs suggestions and ideas to supplement those already being put into effect. Members should feel free to write to the State Headquarters Office, offering recommendations for specific undertakings.

PURPOSES AND OBJECTIVES OF BUREAU

The activities of the Bureau will be directed toward the dissemination of truthful, accurate information about the medical profession, its activities, its services and its official opinion on medical and public health questions. Through this program we hope to establish a wholesome, constructive public attitude toward the medical profession and and its services, win public support for the medical profession's views and stand on social, economic and legislative questions affecting public health and the practice of medicine; and promote the health of Ohio citizens. Obviously, if these objectives are attained, both the public and physicians will benefit, as the former will be supplied with constructive information and facts on the cure and prevention of diseases and the medical profession will win public support.

ACTIVITIES NOW UNDER WAY

Even before the new Bureau was fully organized, some activity in the field of public education was carried out by the State Headquarters Office. Leaflets relative to proposed Federal legislation have been distributed to physicians. Packages of material regarding socialized medicine have been assembled and have been distributed to physicians and others. News releases relative to the postgraduate lecture series and the Annual Meeting have been prepared and disseminated. During the past several weeks an article based on a scientific article published in *The Ohio State Medical Journal*, was prepared by the Bureau and sent to various newspapers throughout the state. Each month articles of interest, published in *The Ohio State Medical Journal*, will be abstracted for the press. Such releases will be regularly augmented by stories on important questions or in response to specific queries. Accurate information will be obtained as the basis for such articles and none will be released until it has been edited and censored by the proper committee of the Association. At present, the Bureau is preparing copy for a series of concise pamphlets on vital public health subjects such as cancer, diphtheria, appendicitis, tuberculosis, etc., telling the public how it can cooperate with the medical profession in fighting these diseases or disabilities.

CONTEMPLATED PROGRAM

According to the present plans, the Bureau eventually will utilize every available means of reaching the public. That is, releases for newspapers and other periodicals, pamphlets, radio, public addresses, exhibits, etc.

Publicity during the Annual Meeting will be handled by the Bureau. Advance stories will be sent to all Ohio newspapers, incorporating local angles as well as general news. During the Annual Meeting the press will be provided with spot releases, abstracts of papers if possible, material for feature articles, etc. The Director of the Bureau will cooperate with and assist local newspapermen in covering the meeting. Radio programs, using Annual Meeting talent, will be arranged. This idea was carried out in conjunction with the Toledo Annual Meeting and was quite successful. Eventually, it is hoped that the Bureau will be able to assemble a public health exhibit which can be held as a part of the Annual Meeting for the special interest of the people of the convention city. Such exhibits have been held in several other states in connection with the annual meeting of the state medical societies of such states and have proved beneficial and successful.

The Bureau will handle publicity and promotional activities for the postgraduate lectures. Also, it will handle publicity for the work of the various committees of the State Association, releasing spot news on their activities at the appropriate time and after approval of the committee.

WILL HAVE SPEAKERS' LIST

One part of the Bureau's activities of far-reaching importance, will be the organization of a "Speakers' Bureau" within the Bureau of Public Education, through which speakers can be provided for lay organizations and lay assemblies. The personnel of the speakers' list will be composed of members of the Association, particularly qualified to address non-medical audiences on medical and public health questions, as well as medico-economic subjects. Ma-

terial for such addresses and biographical information about the speakers will be collected in the Bureau office to assist the speakers in preparing their talks and for promotional work. Also, the Bureau will keep a calendar of meetings planned or announced by other organizations and agencies and at the appropriate time will offer its services to such organizations, the object being to have some speaker representing the Ohio State Medical Association appear on the program or programs planned by such organizations.

As pointed out previously, the Bureau will enlarge its activities in preparing and distributing pamphlets on various diseases and disabilities.

Publicity and promotional work in connection with social and economic aspects of medicine will be carried on.

Ultimately, the Bureau hopes to have exhibit material which can be made available to county medical societies and lay organizations. A start in this direction already has been made. The Bureau, at this time, is assembling material for an exhibit at the Ohio State Fair, August 26 to September 1, inclusive.

It is planned to use the radio as a means of informing the public about health matters and concerning the views of the medical profession of Ohio on sundry questions. Material for radio playlets and interviews will be assembled and will be made available to county medical societies where broadcasting facilities exist. Also, arrangements may be made for regular broadcasts in the name of the State Association itself.

NEEDS HELP OF COUNTY SOCIETIES

Obviously, the above is only a brief sketch of what the new Bureau hopes to accomplish and its possibilities. For the most part the Bureau hopes to work through the county medical societies by aiding them in setting up programs of effective local public education, making suggestions for plans of action locally, providing the ammunition for local programs and acting in a general way as public education counsel for local societies. In this way, the valuable close contact which should exist between the local medical society and local channels of publicity and public relations will not be jeopardized. The Bureau will endeavor to cooperate with groups outside the medical profession at all times but such cooperation will be carried on, so far as possible, through local medical societies which, of course, is the most effective type of promotional work.

Members should bear in mind that the process of establishing a broad program of this type must be carried on slowly in order to minimize mistakes. It will be virtually pioneer work. The wisest plan will be to proceed cautiously from one project to another. Because the Bureau is pioneering, it must have suggestions and ideas. There are many individual projects, no doubt, which can and should be undertaken. The Bureau will welcome suggestions and recommendations from the membership generally. If the membership will cooperate with the Bureau and give it the support which it deserves, public confidence in the profession can be re-won, distorted ideas about medicine and the medical profession eliminated, and public health in Ohio improved.

HEIGH HO! COME TO THE FAIR!

As part of the program of the Bureau of Public Education there will be an effective exhibit sponsored by the Ohio State Medical Association at the Ohio State Fair, August 26 through September 1, at Columbus. Twenty feet of choice wall space in the building set aside for health exhibits is the spot the Bureau obtained, and in addition to that there will be plenty of places for posters in the center of the floor.

The wall space will be occupied by two exhibits obtained from the American Medical Association pointing out the dangers of self diagnosis and medication and emphasizing the wisdom of periodic health examinations. These will include shadow boxes and other mechanical devices to be operated by the visitors, and exposition files with questions and answers. The posters will illustrate various fundamental points about medicine and medical organization in Ohio. Our neighbors will be the State Department of Health, the Ohio State Dental Society, and the Women's Field Army for the Control of Cancer.

At this writing the exhibit promises to be one of the most attractive and educational at the Fair. Tell your patients who are coming not to miss it. And be sure to see it yourself!

Appointed to University of Cincinnati Staff

Dr. Albert Bruce Sabin, associate research scientist at Rockefeller Institute, New York, will become a research fellow of the Cincinnati Children's Hospital Research Foundation and associate professor of pediatrics at the University of Cincinnati College of Medicine in September. Dr. Sabin is widely known for investigations in virus diseases. He was recently awarded the Theobald Smith medal and $1000 prize by the American Association for the Advancement of Science.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Wagner Bill in Coma But Not Dead; Hard Fight in Future Predicted

Latest reports from Washington indicate that the Wagner Health Bill has been pigeonholed for this session of the Congress. However, there is every assurance that the question of federalized medicine will be an even greater issue during the next session—perhaps even become an issue in the 1940 political campaigns.

In predicting that this would happen, *The Journal* some time ago issued a warning that the medical profession must be prepared to fight even harder next year than this year. Proponents of the Wagner Bill are not going to be discouraged by this year's reverses. Zealots and reformers aren't easily shelved.

Between now and the first of the year, the medical profession must strengthen its lines and display more initiative. The most effective thing which the profession can do through its medical societies is to get closer to the public and give the public more information and stronger arguments. There is plenty of ammunition. The need is for more to do the firing.

We believe the public can be convinced that it wants no part of a federalized system of medical and health service if the proper approach is made. Physicans must be the leaders in this campaign. Every physician should vow to make at least one address before some lay gathering between now and January 1 on why government control of medical service will be detrimental to the best interests of the people. No excuse for not doing so, except illness, can be considered as legitimate.

Everywhere one goes he hears physicians discussing this important question, most of them expressing the hope that federalized medicine will not come. What are those physicians doing about it? Many of them nothing. The crying need is for action—not only among the leaders of the profession but within the ranks. The family physicians who have access to the homes of countless individuals and the specialists who see countless others in their offices and in hospitals are the ones who are the real standard-bearers for they are the ones who meet persons, have a chance to talk with them, in whom the public has the confidence and to whom the people look for advice on medical and health matters.

Here's a Job for Each Medical Society Right Now

Elsewhere in this issue will be found an article analyzing the new state poor relief act. We trust that members will read the article and see that their respective county medical society takes immediate steps to go into a huddle with county commissioners and city officials regarding medical care activities.

The new state act is more or less a "new deal" in relief administration in Ohio. Some vital changes have been made. Medical care is given definite status. If county medical societies are on their toes, an improved medical program can be worked out in each county.

Obviously, the responsibility for arranging conferences with county commissioners and city officials rests with the officers and proper committee of each county medical society. However, a little urging by individual members would be helpful.

Here is a chance for the medical profession through county organization to play a major role in formulating policies and procedure for the handling of medical relief. It will be a shame if any muff the opportunity. No uniform procedure intended for application in all counties can be drafted even if it were desirable. Local situations, conditions and desires should be the determining factors.

Science is built up of facts, as a house is built up to stones; but an accumulation of facts is no more a science than a heap of stones is a house. —Poincare.

Proper Officials Should be Consulted on Adoption Matters

Newspapers had a field day recently in reporting a so-called "baby adoption scandal" in northeastern Ohio. We are not interested in discussing the case, except, of course, to say that publicity such as that given to the episode referred to harms the prestige of the medical profession generally.

There is one point, however, which needs emphasis. Physicians quite often are called upon for advice and assistance by persons desiring to adopt a child or by persons seeking a home for an infant. The physician should not regard such responsibility lightly. Moreover, he should bear in mind that there are certain legal re-

quirements which must be fulfilled. It is O.K. for the physician to assist but always he should advise conferences with the local probate or juvenile court and with the State Division of Charities, charged with the legal responsibility of handling the adoption and placement of children. The physician should play safe by working with and through legal, reliable authorities. By doing so he protects himself and renders real assistance to the interested parties.

Words are things, and a small drop of ink, falling like dew upon a thought, produces that which makes thousands, perhaps millions think.—Byron.

Good Old Damon! He's Tops; So's His Old Man

Recently, we noted that Damon Runyon won some kind of a prize from some Fourth Estate group for his feature writing during the past year. Swell, says we. Good Old Damon consistently hits the ball, in our opinion.

For example, take a squint at the following excerpt from his column, "Looking Around". We're inclined to think that Damon's "old man" had plenty on the ball and that's why he is so darn good himself. To quote:

"Our old man used to say that he guessed the percentage of scoundrels was less among doctors than any other class of men, professional or otherwise, in the world. He said that in his whole life he had never encountered more than two or three doctors who were out-and-out bad 'uns.

"Our old man said that whenever his faith in humanity commenced to falter, he just contemplated the character and works of the doctors he knew and that bolstered him up right away. He said that whenever he passed certain doctors in our old home town of Pueblo, he felt like taking off his hat as a mark of respect to them, only that action would have embarrassed the doctors.

"Our old man said people took doctors too much for granted. He said if a fellow jumped into a river and, at no great risk to himself, rescued a drowning man or woman, the paper made a big noise about the incident and pronounced the rescuer a hero. Maybe, he even got a medal or some other token of his bravery, but our old man said the very same day some doctor might save the lives of half a dozen people by his skill and devotion, and you never heard of the matter.

"Our old man said you might read stories in the papers every day over quite a period about the fight some prominent man or woman was making for life against illness and about how, eventually, they won out, but he said you never read anything about some doctor's part in that battle. He said you never read how the doctor sat there day and night struggling for the patient's life even when the task seemed hopeless.

"He said you would think from what the papers said that the patient's own fortitude was responsible for defeating death rather than the skill of the doctor. He said a lot of patients generally thought pretty much the same way after they got well, especially when the doctor's bill came in.

"Our old man said it was astonishing how little credit a patient whose life had been saved was willing to give the doctor after he got the bill. He said any person at death's door would always be glad to give all they possessed to live awhile longer, even though their possessions amounted to millions, but after some doctors pulled them back from the dark abyss and they got to walking around again, they were not willing to pay even a minute percentage of their holdings.

"Our old man said he never could understand why most people seemed to feel that the doctor's bill was the very last they were obligated to pay. He said his own life had been saved several times by doctors and that he always paid the doctors first and let the other debts incurred during his illness wait. He said he figured that had the doctor not saved him and put him in action again, the others would never have been paid anyway.

"Our old man said he knew fellows there in our old home town of Pueblo who always kept their doctor waiting for months and even years for his money while in the meantime they lived high themselves and entertained and wore good clothes. He said that these fellows, even while indebted to the doctor, had no compunctions of conscience about calling him again in case of illness."

In a system of medical care dominated by governmental regulation, the citizen is likely to wake up to find that he has sold his medical birthright for a mess of governmental pottage and to learn that he is receiving only the husks of medical care.—W. F. Braasch, M.D., in Minnesota Medicine.

Profession and Public Must Work Together To Curb This "Killer"

Let's stop the unnecessary, high mortality from appendicitis!

This has become the cry of those members of the medical profession who have taken the time and trouble to investigate the question.

What can and should the physician do to help remedy this situation? He can do much, although it should be understood that the medical profession alone cannot solve the problem.

Kelly and Watkins of Cleveland have pointed out in a study, "Appendicitis in Adults", based on an analysis of 2,000 cases of chronic, acute simple and acute suppurative appendicitis, that it is their belief that increased mortality from this ailment is due to delay in operation and that this delay in turn is due to (1) economic causes, (2) the tendency to use home remedies, including laxatives, and (3) complicating factors in diagnosis.

Obviously, the physician cannot do much, if anything, about eliminating the economic causes, although he might emphasize to all with whom he comes into contact that none who need medical attention should hesitate to consult medical authorities as medical facilities are available to all and that economic complications are still regarded by the medical profession as secondary

considerations when it comes to rendering necessary medical care.

The physician can be a more important factor in educating the public to avoid the use of laxatives and patent medicines for abdominal disturbances and not to rely on home medication for suspicious conditions. This point should be driven home by every physician to his own patients and it certainly should be emphasized by the physician when he addresses lay gatherings.

Responsibility for eliminating complicating factors in diagnosis causing delay in operation rests squarely on the shoulders of the physician. This phase of the problem can only be met through constant efforts on the part of the individual physician to improve his knowledge and technique.

The mortality rate from appendicitis can be decreased if the medical profession and the public each will do its part and the two will cooperate more fully on a concerted campaign against one of the nation's biggest killers.

We just don't know our own strength. The doctor can be a community leader anywhere, for his very title is a pass key that opens almost every door. Conferences of pedagogues and parents have, for the most part, been hearing only one side of the medical care story. The doctors can give them the other side. Why don't they?—Essex County Medical Society Bulletin.

Time To Call a Halt On Exploitation of Vitamin Mixtures

It begins to look as if the program of selling the public on the value of nutrition as a health safeguard has become a bit confused—perhaps out of hand. Maybe it is about time for the medical profession to step in and try to restore sanity.

The public is being flooded with advertisements and circulars from various sources—even some groceries are doing it—urging greater consumption of products rich in vitamin content and even of vitamin concentrates in tablet, pill or capsule form.

Looking at the matter entirely from the angle of what is or isn't good for the public health, we cannot help but doubt that there can be any accrual to the public health from blind consumption of vitamin concentrates.

For example, dull eyes are very seldom due to lack of vitamins and vitamins would only be of value to dull eyes when such dullness is due to a deficiency of a certain vitamin and then that certain vitamin should be given and not a mixture—obviously on prescription of the attending physician.

Another example: There is no evidence that vitamins alone or in all cases will cause good bones, good teeth, buoyant vitality, etc.

Vitamin preparations are intended for the sick. They never can be anything but a poor substitute for good food and a proper, balanced diet. Certainly they should not be sold in shotgun mixtures or over the counter without written orders from a physician.

What can the medical profession do to correct this situation? The best approach will be through public education about vitamins—their uses and abuses. Patients should be advised that an adequate diet usually will suffice and if it doesn't, advice of competent medical authorities should be sought. These facts may be disseminated by the physician to his patients or by the physician in talks before lay gatherings.

Vitamin preparations are of value and have their place in modern medicine. They are too valuable and necessary to be subjected to the bad effects of exploitation and unwarranted claims through exaggerated advertising.

The most liberal man has to guard against the temptation to put into effect liberal aims by totalitarian methods.—Struthers Burt in The Forum.

Time for Physicians and Pharmacists To Begin Pulling Together

Much as we hate to admit it, the professions of medicine and pharmacy are not pulling together as they should be doing. We're getting fed up hearing about the petty bickerings in which physicians and pharmacists are engaged. Acting like a bunch of children, we believe. These two professions have so much in common and each is so dependent on the other that they should be living and working together with mutual objectives in view.

We're not optimistic enough to believe that all in the two groups will ever be satisfied. However, we do feel that common ground can be attained and that a more cooperative relationship can be developed.

Perhaps the following suggestions on cooperation between physician and pharmacist offered by writers in the *Merck Report* would be a good starting place for development of a better understanding between the two professions:

The Physician Should:

Consider the pharmacist as a medical team mate. He is not a mere shopkeeper but a professional man.

Remember that the pharmacist constitutes a valuable ally both to physician and patient.

Apply the "Golden Rule" in his relation to the pharmacist.

Write legible prescriptions, with as much care as a bank check.

Avoid possible incompatibilities.

Never price a prescription to a patient.

Remember that self-dispensing by the physician

antagonizes the pharmacist as much as counter-prescribing by the pharmacist antagonizes the physician.

Never resent an inquiry by a pharmacist about a prescription the physician has written. Such communication may possibly save a life.

Praise whenever he can and never criticize the pharmacist's work in the hearing of the patient.

Remember that pharmacy is keeping abreast of materia medica, pharmacology, and therapeutics, as evidenced by its official meetings and publications. There is much that both professions can interchange for mutual benefit.

Remember that both physician and pharmacist are public health representatives.

Always remember that the planting of medico-pharmaceutic cooperation reaps a reciprocal harvest.

The Pharmacist Should:

Never attempt to diagnose or prescribe.

Refuse to assume the responsibility of so-called "First Aid," such as removing foreign bodies from the eye, etc. Always advise immediate medical care.

Avoid encouraging self-medication by the layman.

Impress on the public the need for a periodic examination by a physician.

Fill every prescription exactly as called for.

Double check every prescription to eliminate human errors.

When receiving a prescription which raises a doubt as to dosage, etc., always consult with the physician before dispensing.

Never discuss a prescription with a patient.

Label all medicine distinctly, to eliminate confusion or errors by the patient.

Keep his prescription department immaculately clean, and make the general appearance of his establishment professional.

Keep a stock of fresh, high quality chemicals and pharmaceuticals, regardless of price.

Include in his equipment accurate apparatus for measuring and weighing, and the recognized pharmaceutical books for constant reference.

Remember his obligation to provide speedy service at all times.

Welcome the physician to inspect the prescription department and encourage his suggestions.

Never "stagnate," but keep abreast with medical and pharmaceutical progress through reading, lectures, and society meetings.

Never "profiteer," but charge enough to enable him to supply the best ingredients, skill, and service.

Never forget that he shares the physician's responsibility in the maintenance of public health.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16, 1940.

American Medical Association, New York, June 10-14, 1940.

American Congress of Obstetrics and Gynecology, Cleveland, Sept. 11-15.

American Congress of Physical Therapy, New York, Sept. 5-8.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 8-13.

Testimony by Osteopaths In Suit Against M. D. Is Ruled Incompetent

Action of a trial court in withdrawing from the consideration of the jury the expert testimony of two osteopathic physicians in a malpractice suit against a doctor of medicine was approved by the Court of Appeals of Lorain County in a recent decision, (O.A.R. 436 . Syllabus of the Court's decision follows:

1. In an action against a physician for malpractice, the propriety of his diagnosis and treatment is to be judged by the standard which physicians of the same school of medicine, in the same or a similar locality, employ in the exercise of ordinary care, skill and diligence.

2. In an action against a physician for malpractice, the plaintiff may not, over objection, prove his case in chief by the expert opinion evidence of the defendant physician, where such defendant has been called for cross-examination under the provisions of Section 11497, General Code.

Quoting from the decision of the Court of Appeals: "The plaintiff, in his effort to establish the claimed negligent conduct of the defendant, offered as expert witnesses two doctors of the osteopathic school, each of whom testified as to the treatment which he would have accorded plaintiff had he been called to attend plaintiff.

"At the conclusion of the plaintiff's case in chief, upon motion of the defendant, all of the expert testimony of said osteopathic physicians was withdrawn from the consideration of the jury, for the reason that the evidence of said osteopaths did not indicate they possessed any knowledge whatsoever as to the standards of skill, care and diligence exercised by physicians and surgeons of the school of medicine to which the defendant belonged . . . .

"From our reading of the record in this case we find no evidence from which the jury could determine the standard of care, skill and diligence by which the defendant's conduct was to be judged. . . .

"The absence of such evidence justified the trial court in directing a verdict for the defendant. We find no error in the action of the trial court in withdrawing from the consideration of the jury the expert testimony of the osteopathic physicians."

Cleveland—Dr. J. A. Doull gave the highlights in the developments of medical science in the past century at a recent meeting of the students of Mt. Union College, Alliance, in observance of Health Week.

Wilmington—Dr. W. K. Ruble, Clinton County health commissioner, has returned to his office after an absence due to illness.

Licenses Granted 320 Medical School Graduates at Meeting of State Medical Board July 18

LICENSES to practice medicine and surgery in Ohio were granted 320 medical school graduates by the State Medical Board at its meeting in Columbus, July 18. Of these, 312 passed the June examinations and 8 had passed the June, 1938, examinations. Included in the licensees are 25 graduates of foreign schools, of whom 3 are American citizens. Twelve graduates of foreign schools failed in the examination, one of whom is an American citizen. This was the last examination under the old law. Applicants for entrance into future examinations must meet the requirements of Senate Bill 97, which became effective July 25.

The Board also granted certificates to 14 osteopaths, 4 chiropractors, 9 mechano therapists, 1 naprapath, 36 chiropodists, 4 cosmetic therapists and 23 masseurs.

Dr. Harold Schwartz, Cleveland, a graduate of Western Reserve University School of Medicine, made the highest grade—89.6 per cent—in the examinations. Dr. Willis T. Kubiac, Youngstown, Ohio State University College of Medicine, and Dr. Ralph B. Vance, Salem, Jefferson Medical College, were tied for second with grades of 89.4 per cent and Dr. Leo E. Fischer and Dr. Aaron Weisberg, Cincinnati, both graduates of Eclectic Medical College, were tied for third with grades of 89.1 per cent.

Those granted licenses to practice medicine and surgery after having passed the June examinations were:

OHIO STATE UNIVERSITY COLLEGE OF MEDICINE

Lambert J. Agin, Norwood; Samuel Allen, East Liverpool; Benjamin Arnoff, Cleveland; Curtis P. Artz, Hilliards; Annie L. Atkinson, Cleveland; Walter F. H. Bartz, Youngstown; Robert D. Berkebile, Cleveland; Jack J. Berry, Toledo; Merwin R. Blanden, Toledo; Robert E. Bowsher, Toledo; Lillian B. Brant, Cleveland; Emma M. Burkey, Columbus; Olin P. Burt, Columbus; Wendell A. Butcher, Columbus; William H. Carter, Cleveland; Hugh C. Dorr, Columbus; Robert A. Everhart, Springfield; David N. Farber, Cleveland; Gordon S. Fessler, Portsmouth; Henry H. Fineberg, Cleveland; Robert N. Finnical, Cadiz; Rosendo Forteza, Jr., Columbus; Harry H. Fox, Cleveland; Thomas W. Frame, Akron; Henry J. Francis, Dayton (deceased); Joseph E. Ghory, Cincinnati; James D. Goodman, Cleveland; Arthur G. Groscost, Columbus; Elton B. Gudenkauf, Toledo; Donald C. Haugh, Wellsville; Benjamin L. Hawkins, Cincinnati; James G. Healey, Columbus; Eldred B. Heisel, Akron; Desmond D. Kackley, Cleveland; Homer I. Keck, Cincinnati; Gilbert D. Keil, Toledo; Bayard M. Keller, Cuyahoga Falls; John M. Lowery, Columbus; Richard A. Lucas, Columbus; James H. McCreary, Columbus; Victor N. Kistler, Carroll; Earl P. Knisely, Columbus; George O. Kress, Cincinnati; Willis T. Kubiac, Youngstown; Arnold B. Kurlander, Cleveland; Warren A. Lapp, Norwood; Armond L. Leibovitz, Akron; George H. Lemon, Toledo; Tom. S. Levin, Cincinnati; Richard C. Light, Columbus; Henry A. Long, Columbus; William F. Lovebury, Columbus; George I. Martin, Blanchester; Max A. Mendelson, Bellaire; Harold M. Messenger, Cleveland; Blanche B. M. Meyer, Columbus; Robert K. Miles, Cleveland; John A. Moss, Cleveland; Marguerite G. Oliver, Newark; Helen L. Pierson, Columbus; Alexander Pollack, Columbus; Pliny A. Price, Toledo; Aaron J. Reiches, Cleveland; Harold K. Roberts, Urbana; Galon S. Rodabaugh, Williamstown; Harold E. Root, Ashtabula; John R. Ross, Bellevue; Dell A. Russell, Middleport; Ralph B. Samson, Washington C. H.; Paul W. Schafer, Columbus; William H. Schumaker, Lorain; Robert K. Scott, Coalton; Ralph H. Shilling, Columbus; Jack S. Silberstein, Columbus; Raymond M. Slabaugh, Jr., Dayton; William R. Sparling, London; George T. Stine, Cleveland; Frank Ternocky, Jr., Mansfield; Gerald N. Wilson, Columbus; Wolfe Zapolan, Cincinnati.

UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE

Charles B. Armstrong, Cincinnati; Landon H. Bachman, Cincinnati; Russell W. Bernhard, Cincinnati; Nathan D. Belinky, Youngstown; Irvin B. Beren, Cincinnati; Carl Z. Berry, Cincinnati; Solomon Bershadsky, Cincinnati; Bernard Burgin, Cincinnati; Mark F. Canmann, Cincinnati; Robert G. Cook, Toledo; Gilbert R. DeRyke, Cincinnati; Adrian Diamond, Cincinnati; Charles A. Dille, Dayton; Charles F. Egolf, Cincinnati; Charles W. Fey, Hamilton; Louis J. Finkelmeier, Cincinnati; Joseph R. Fouts, Cincinnati; Frederick Freihofer, Cincinnati; Richard W. Gardner, Port Clinton; Nancy E. Gibbons, Cincinnati; James R. Glier, Cincinnati; John E. Gregory, Cincinnati; Milton W. Gwinner, Cincinnati; Boyce Y. Hatfield, Dayton; Carl J. Hochhausler, Cincinnati; Merlin F. Junge, Cincinnati; Louis Kreindler, Cincinnati; Othilda Krug-Brady, Cincinnati; John C. LaVoo, Warren; Joseph D. Messler, Cincinnati; Harold B. Miles, Cincinnati; William E. Molle, Toledo; Leonard Montag, Toledo; Raymond W. Monto, Toledo; William A. Moore, Cincinnati; James F. Morton, Hamilton; Ben V. Myers, Elyria; John R. Nenninger, Madeira; Roland E. Nieman, Cincinnati; Leo G. Nutini, Cincinnati; Daniel Oscherwitz, Cincinnati; George E. Osler, Cincinnati; James J. Otis, Celina; George L. Parkin, Washington C. H.; Linus E. Rausch, Eaton; Anthony C. Rini, Cincinnati; Carl A. Roden, Hamilton; William G. Sauer, Cincinnati; John R. Schmidt, Cincinnati; Margaret J. Schneider, Cincinnati; Cletus W. Schwegman, Cincinnati; Aaron Schwinger, Cincinnati; Gustav S. Shaheen, Canton; Frederick A. Stine, Cincinnati; Edward J. Stratman, Cincinnati; William C. Thornell, Cincinnati; Nevin R. Trimbur, Youngstown; Robert E. Tschantz, Canton; Rena L. Urban, Cleveland; Carl F. Vilter, Cincinnati; William D. Wells, Cincinnati; Edward Woliver, Cincinnati; William K. Zollinger, Piqua.

WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE

Robert V. Bachman, Cleveland; Alice V. Barker, Cleveland; Milton E. Bobey, Rocky

River; Raymond A. Budney, Cleveland; Maurice D. Buskirk, Cleveland; Frank J. Calo, Cleveland; Gerald E. Cheadle, Dayton; Hubert D. Clapp, Cleveland; Kenneth H. Cowdery, Cleveland; Richard A. Cunningham, Defiance; Donald W. Dewald, Crestline; Frederick A. Dowdy, Cleveland; Morris Eigenfeld, Cleveland; Marion G. Fisher, Youngstown; Victor R. Frederick, Springfield; Marvin S. Freeman, Cleveland; Dorothy G. Gates, Cleveland; Ben S. Gillespie, Barnesville; Howard H. Gradis, Cleveland; John H. Graham, Cleveland; John B. Hall, Cleveland; John Halley, Cleveland; Homer C. Hartzell, Cleveland; Shigeki Hayashi, Cleveland; Woodrow S. Hazel, Youngstown; George F. Hilles, Cleveland; Robert E. Holmberg, Cleveland; William H. Hosfield, Akron; Victor D. Ippolito, Cleveland; Myron F. Kanter, Cleveland; Douglass S. King, Cleveland; Louis C. Kossuth, Cleveland; David F. Leach, Cleveland; David R. Limbach, Cleveland; Lucile H. Limbach, Cleveland; John R. McKay, Warren; Thomas R. McLin, Chillicothe; Isadore Meschan, Cleveland; George W. Metz, Cleveland; Nicholas Misischia, Cleveland; William M. Novince, Cleveland; William S. Oliver, Cleveland; James W. Osborn, Cleveland; John D. Osmond, Jr., Cleveland; Maynard P. Pride, Cleveland; Albert E. Rath, Wooster; Charles E. Richards, Jr., Cleveland; Albert G. Roode, Cleveland; Harold P. Roth, Cleveland; Peter Rowe, Cleveland; Hortense B. Schmitz, Cleveland; Harold Schwartz, Cleveland; Bliss K. Shafer, Cleveland; Iola A. Sivon, Ravenna; Ernest D. Stokien, Cleveland; Richard G. Stoll, Cleveland; Robert H. Thompson, Cleveland; Jacob B. Tuckerman, Cleveland; Gordon T. Wagner, Cleveland; Walter B. Webb, Brecksville; Daniel S. Wertheimer, Cleveland.

ECLECTIC MEDICAL COLLEGE, CINCINNATI

Milton H. Applbaum, Cincinnati; Jules E. Baime, Cincinnati; David Biber, Cincinnati; Earl B. Bowman, Norwood; Martin E. Buerk, Toledo; Leo Q. Burstein, Cincinnati; Abraham D. Cohen, Cincinnati; Bernard K. Craw, Toledo; William A. Dasher, Cincinnati; Lyman H. Ellis, Cincinnati; Leo E. Fischer, Cincinnati; Seymour Goldenberg, Cincinnati; Jacob L. Greenberg, Cincinnati; Henry J. Hammerman, Cincinnati; Louis R. Inwood, Cincinnati; Philip B. Keitlen, Cincinnati; S. Reginald Kesselman, Cincinnati; Norman B. Kornfield, Cincinnati; Henry L. Kuperman, Cincinnati; David Levy, Cincinnati; Edwin L. Machkowsky, Cincinnati; William K. Newill, Cincinnati; Hymen A. Pober, Cincinnati; Frederick F. Price, Stony Ridge; Luther S. Pugh, Custar; Israel N. Schenker, Cincinnati; Sarah S. Schenker, Cincinnati; Joseph W. Schonberger, Cincinnati; Ferdinand R. Siegel, Cincinnati; Robert M. Sirkle, Cincinnati; Harold Solomon, Cincinnati; Benjamin Starr, Cincinnati; Anthony V. Stassi, Cincinnati; Aaron Weisberg, Cincinnati; William W. Weissberg, Cincinnati; Leo Whitman, Cincinnati.

OTHER SCHOOLS

John L. Work, Cleveland, Columbia University; Arthur F. Valenstein, Cincinnati, Cornell University; Eugene R. Bendetto, Alliance, David A. Tutrone, Cleveland, Creighton University; Robert A. Evans, New Lexington, Charles A. Gerace, East Liverpool, Georgetown Medical College; William E. Bageant, Cleveland, Hugh W. Irey, Cleveland, Charles C. Kissinger, Toledo, William R. Schultz, Wooster, George Washington University; Harry W. Bashine, Cleveland, Hahnemann Medical College; William F. Armstrong, Columbus, Maxon H. Eddy, Cleveland, Sigmund H. Smedal, Cleveland, Robert M. Woolford, Hamilton, Harvard University; Wilfred I. Carney, Youngstown, James C. Hazlett, Steubenville, Ralph B. Vance, Salem, Jefferson Medical College.

Edgar A. P. Kellerman, College Point, N. Y., New York University; Bernard S. Malasky, Cleveland, Loyola University; Fred B. Hapke, Troy, Northwestern University; Nicholas G. Amato, Springfield, Francis O. Fry, Cleveland, Henry D. Lederer, Cincinnati, Thomas J. Trythall, Groveport, Rush Medical College; Edward G. Carey, Marietta, Tufts College Medical School; Elmer E. Cooper, Cleveland, Jonathan M. Williams, Cleveland, University of Chicago; James E. Fetherston, Cleveland, University of Illinois. Frank Mercurio, Cincinnati, University of Louisville; Nina A. Anderson, Cincinnati, University of Minnesota; Kenworthy M. Hoge, Jr., Cleveland, Charles W. Mills, Jr., Chillicothe, University of Pennsylvania.

Edward J. Davis, East Canton, Joseph G. Ham, Portland, Maine, Atlee B. Hendricks, Alliance. Edgar A. Knowlton, Mantua, Robert L. Piercy, Youngstown, Ernest W. Saward, Jr., Toledo, Robert J. Willoughby, Warren, Lawrence E. Young, Toledo, University of Rochester; Lee P. Longley, Cleveland, Howard A. Voskuil, Youngstown, John F. Wanless, Cincinnati, University of Wisconsin; Abraham A. Golden, Cleveland, Washington University; Everett F. Crutchlow, Cleveland, John B. Holst, Marietta, McGill University; Martin Abraham, New York City, Julia E. C. Aron, Cleveland, Friedrich-Wilhelms University, Berlin.

Albert L. Newlin, Medina, New York, Hans W. Mamlok, Toledo, Joseph Mueller, Friedrich-Wilhelms University, Bonn, Germany; Ernst M. L. Mamlok, Columbus, Friedrich-Wilhelms University, Breslau, Germany; Franz Goldmann, Cleveland, German University of Prague, Czechoslovakia; Elise S. Mainzer, New York City, Ernst B. Mainzer, New York City, University of Basel, Basel, Switzerland; Fritz Brandt, Cincinnati, University of Berlin, Berlin, Germany; William E. Sag, Cleveland, University of Debrecen, Debrecen, Hungary; Herbert L. Selo, Cleveland, University of Erlangen, Erlangen, Germany; Walter M. Liepmann, Cleveland, University of Freiburg, Freiburg, Germany; Erich O. von Baeyer, Cleveland, University of Heidelberg, Heidelberg, Germany; Norman Paul, Cleveland, University of Lausanne, Lausanne, Switzerland; Henry Engel, New York City, University of Munich, Munich Germany; Constantin Papageorge, Martins Ferry, University of Paris, Paris, France; Felix G. Cohn, New York City, University of Strassburg, Strassburg, France; Bernhard C. Chomet, Cleveland, Ferdinand Donath, Cincinnati, Friedrich Fischl, New York City, Paul Kunstadt, Cincinnati, Frederick C. Redlich, Cincinnati, Ernst Sternfeld, Toledo, University of Vienna, Vienna, Austria; Leo Teitz, Cincinnati, University of Wurzburg, Wurzburg, Bavaria, Germany.

The following individuals who passed the June, 1938, examinations were also licensed: George W. Beers, Massillon; Joseph P. Fakehany and Chas. R. Forrester, Toledo; Thos. L. Smith, Lorain; Jos. J. Sofraneck, Jr., Youngstown; Elwood M. Hammond and Merle K. Singer, Massillon—all graduates of Loyola University School of Medicine, Chicago, and Joseph M. Siekierski, Cleveland, Marquette University School of Medicine.

Splendid Program Arranged for American Congress On Obstetrics and Gynecology, Sept. 11-15, Cleveland

MANY Ohio physicians are planning to attend the American Congress on Obstetrics and Gynecology to be held at Cleveland, September 11-15, under the auspices of the American Committee on Maternal Welfare.

Member organizations of the American Committee on Maternal Welfare include Section on Obstetrics and Gynecology, American Medical Association; American Association of Obstetricians, Gynecologists and Abdominal Surgeons; American College of Surgeons; American Gynecological Society, American Hospital Association; American Nurses Association; American Public Health Association; Southern Medical Association; U. S. Bureau of the Census; U. S. Children's Bureau; U. S. Public Health Service, etc.

The program will include formal papers, round-table conferences and scientific and technical exhibits. Details of the preliminary program of the Section on Medicine, which will be of primary interest to physicians and a resumé of the program on the public health aspects of maternal and child care, follow:

MONDAY, SEPTEMBER 11
(9:00-11:30 A.M.)

1. "The Thyroid and Pregnancy", Dr. L. M. Randall, Rochester, Minn., division of obstetrics and gynecology, Mayo Clinic.
2. "Management of the More Common Heart Lesions During Pregnancy", Dr. Julius Jensen, St. Louis, assistant professor of medicine, Washington University School of Medicine.
3. "Treatment of Diabetes in the Pregnant Woman", Dr. Henry J. John, Cleveland.
4. "Management of Tuberculosis Complicated by Pregnancy", Dr. Edwin M. Jameson, Saranac Lake, New York, attending surgeon, General Hospital of Saranac Lake and Reception Hospital.
5. "Nutritional Factors in Pregnancy", Icie Macy Hoobler, Ph.D., Detroit, director of research, Children's Fund of Michigan.
6. "The Surgical Abdomen Complicated by Pregnancy", Dr. Louis E. Phaneuf, Boston, professor of gynecology, Tufts College Medical School; discussion by W. D. Fullerton, Cleveland, associate gynecologist, Lakeside Hospital.
7. "The Treatment of Abortions", Dr. David S. Hillis, Chicago, Ill., associate professor of obstetrics, Northwestern University Medical School; discussion by Dr. Jalmar H. Simons, Minneapolis, assistant clinical professor of gynecology and obstetrics, University of Minnesota.

TUESDAY, SEPTEMBER 12
(9:00-11:30 A.M.)

1. "The Newer Conception of Ovarian Neoplasm", Dr. Howard C. Taylor, Jr., New York City, associate professor of gynecology and obstetrics, New York University; discussion by Dr. John L. McKelvey, Minneapolis, professor of obstetrics and gynecology, University of Minnesota.
2. "Special Features in the Operative Management of Surgically Difficult Malignant Growths and Kindred Lesions of the Pelvic Viscera", Dr. Arthur H. Curtis, Chicago, professor of obstetrics and gynecology, Northwestern University Medical School; discussion by Dr. Fred J. Taussig, St. Louis, clinical professor of obstetrics and gynecology, Washington University School of Medicine.
3. "The Diagnosis and Treatment of Pelvic Endometriosis", Dr. Franklin L. Payne, Philadelphia, associate professor of obstetrics and gynecology, University of Pennsylvania Medical School; discussion by Dr. Jean P. Pratt, Detroit, chief, obstetrics and gynecology, Henry Ford Hospital.
4. "The Diagnosis and Treatment of Ectopic Pregnancy", Dr. John Rock, Boston, assistant in gynecology, Harvard Medical School; discussion by Dr. Harvey Matthews, Brooklyn, clinical professor of obstetrics and gynecology, Long Island College of Medicine.

WEDNESDAY, SEPTEMBER 13
(9:00-11:30 A.M.)

1. "Reduction of the Operative Incidence in Obstetrics", Dr. S. A. Cosgrove, Jersey City, medical director, Margaret Hague Maternity Hospital; discussion by Dr. A. C. Beck, Brooklyn, professor of obstetrics and gynecology, Long Island College of Medicine.
2. "Practical Consideration of Labor Complicated by a Contracted Pelvis", Dr. John Harris, Madison, Wisconsin, professor of obstetrics and gynecology, University of Wisconsin Medical School; discussion by Dr. Thaddeus L. Montgomery, Philadelphia, associate professor of obstetrics, Jefferson Medical College.
3. "Dystocia Due to the Cervix and Soft Parts", Dr. W. C. Danforth, Evanston, Illinois, associate professor of obstetrics and gynecology, Northwestern University Medical School; discussion by Dr. George Kamperman, Detroit, attending obstetrician and gynecologist, Harper Hospital.
4. "The Pathology and Treatment of the Retained Placenta", Dr. E. A. Schumann, Philadelphia, professor of obstetrics, University of Pennsylvania Medical School; discussion by Dr. Albert Mathieu, Portland, Oregon, assistant clinical professor of obstetrics and gynecology, Oregon University Medical School.

THURSDAY, SEPTEMBER 14
(9:00-11:30 A.M.)

1. "Treatment of Endocrine Disturbances in the Adolescent Female", Dr. Emil Novak, Baltimore, associate in clinical gynecology, Johns Hopkins University School of Medicine; discussion by Dr. B. M. Anspach, Philadelphia, professor of gynecology, Jefferson Medical College.
2. "The Treatment of Menopausal Disturbances", Dr. August A. Werner, St. Louis, associate professor in internal medicine, St. Louis University School of Medicine; discussion by Dr. E. L. Sevringhaus, Madison, Wisconsin, associate

professor of medicine, University of Wisconsin School of Medicine.

3. "Practical Endocrine Therapy in Obstetrics and Gynecology", Dr. Edward Allen, Chicago, assistant professor of obstetrics and gynecology, Rush Medical School, University of Chicago; discussion by Dr. E. C. Hamblen, Durham, North Carolina, associate professor of obstetrics and gynecology, Duke University Medical School.

4. "Sterility in the Female", Dr. S. R. Meaker, Boston, professor of gynecology, Boston University School of Medicine; discussion by Dr. M. E. Davis, Chicago, associate professor of obstetrics and gynecology, the School of Medicine of the Division of Biological Sciences, University of Chicago.

FRIDAY, SEPTEMBER 15

(9:00-11:30 A.M.)

1. "Sulfanilamide in Obstetrics and Gynecology", Dr. Perrin Long, Baltimore, associate professor of medicine, University of Maryland School of Medicine and College of Physicians and Surgeons; discussion by Dr. E. M. K. Geiling, Chicago, professor of pharmacology, Rush Medical College, University of Chicago.

2. "Pyelitis", Dr. Herbert F. Traut, New York City, associate professor of obstetrics and gynecology, Cornell University Medical College; discussion by Dr. J. Mason Hundley, Jr., Baltimore, professor of gynecology, University of Maryland School of Medicine and College of Physicians and Surgeons.

3. "The Treatment of Chronic Pelvic Infections", Dr. Charles C. Norris, Philadelphia, professor of obstetrics and gynecology, University of Pennsylvania School of Medicine; discussion by Dr. J. P. Greenhill, Chicago, professor of gynecology, Loyola and Cook County Graduate School.

4. "Immediate and Remote Complications of Labor", Dr. Frank W. Lynch, San Francisco, professor of obstetrics and gynecology, University of California Medical School; discussion by Dr. G. D. Royston, St. Louis, professor of clinical obstetrics and gynecology, Washington University School of Medicine.

ROUND TABLES

(Running concurrently each day from 12:15 to 1:15 P.M.)

"THE TOXEMIAS OF PREGNANCY"

Monday—Dr. F. S. Kellogg, Boston, assistant professor of obstetrics, Harvard University Medical School.

Tuesday—Dr. Herman Johnson, Houston, Tex., attending obstetrician, Baptist, Jefferson Davis, St. Joseph's and Hermann Hospitals.

Wednesday—Dr. W. J. Dieckmann, Chicago, associate professor of obstetrics and gynecology, the School of Medicine of the Division of the Biological Sciences, University of Chicago.

Thursday—Dr. E. L. King, New Orleans, professor of obstetrics, Tulane University School of Medicine.

Friday—Dr. R. A. Ross, Durham, North Carolina, assistant professor, obstetrics and gynecology, Duke University School of Medicine.

"GENITAL INFECTIONS"

Monday—Dr. B. P. Watson, New York City, professor of obstetrics and gynecology, Columbia University College of Physicians and Surgeons.

Tuesday—Dr. O. H. Schwarz, St. Louis, professor of obstetrics and gynecology, Washington University School of Medicine.

Wednesday—Dr. J. R. Goodall, Montreal, clinical professor of obstetrics and gynecology, McGill University Faculty of Medicine.

Thursday—Dr. John Fraser, Montreal, professor of obstetrics and gynecology, McGill University Faculty of Medicine.

Friday—Dr. Bayard Carter, Durham, North Carolina, professor of obstetrics and gynecology, Duke University School of Medicine.

"OBSTETRIC AND GYNECOLOGIC HEMORRHAGES"

Monday—Dr. George Gray Ward, New York City, clinical professor of obstetrics and gynecology, Columbia University College of Physicians and Surgeons.

Tuesday—Dr. Wm. P. Healy, New York City, gynecologist, Memorial Hospital.

Wednesday—Dr. J. C. Litzenberg, Minneapolis, professor and chief, obstetrics and gynecology, University of Minnesota Medical School.

Thursday—Dr. Norris W. Vaux, Philadelphia, professor of obstetrics, Jefferson Medical College.

Friday—Dr. W. R. Cooke, Galveston, Texas, professor of obstetrics and gynecology, University of Texas School of Medicine.

"THE FETUS AND THE NEWBORN"

Monday—Dr. LeRoy A. Calkins, Kansas City, Missouri, professor of obstetrics and gynecology, University of Kansas School of Medicine.

Tuesday—Dr. W. A. Scott, Toronto, professor of obstetrics and gynecology, University of Toronto Faculty of Medicine.

Wednesday—Dr. Stewart H. Clifford, Boston.

Thursday—Dr. Herbert C. Miller, Jr., New Haven, Connecticut.

Friday—Dr. Edith L. Potter, Chicago, instructor and pathologist, Department of Obstetrics and Gynecology, University of Chicago.

"FORCEPS, OCCIPUT-POSTERIORS, AND BREECH PRESENTATION"

Monday—Dr. Arthur H. Bill, Cleveland, professor of obstetrics and gynecology, Western Reserve University School of Medicine.

Tuesday—Dr. Paul Titus, Pittsburgh.

Wednesday—Dr. W. E. Caldwell, New York City, professor of clinical obstetrics and gynecology, Columbia University College of Physicians and Surgeons.

Thursday—Dr. M. Pierce Rucker, Richmond, Virginia.

Friday—Dr. J. B. Jacobs, Washington, D. C., associate professor of obstetrics, Georgetown University School of Medicine.

"ANESTHESIA, ANALGESIA AND AMNESIA IN LABOR"

Monday—Dr. N. J. Eastman, Baltimore, professor of obstetrics, Johns Hopkins University School of Medicine.

Tuesday—Dr. R. A. Bartholomew, Atlanta, professor of clinical obstetrics, Emory University School of Medicine.

Wednesday—Dr. W. T. Pride, Memphis, professor of obstetrics, University of Tennessee College of Medicine.

Thursday—Dr. Howard F. Kane, Washington, D. C., professor of obstetrics and gynecology,

George Washington University School of Medicine.

Friday—Dr. Clifford B. Lull, Philadelphia, assistant professor of obstetrics, Jefferson Medical College.

PUBLIC HEALTH SECTION SUBJECTS

Sessions of the Section on Public Health will be held concurrently with those of the Section on Medicine, September 11-15. Subjects to be discussed at the morning sessions follow: **Monday**—"Public Health and Maternity Care"; **Tuesday**—"Providing Continuity of Maternal Care in the Rural Areas"; **Wednesday**—"Federal and State Programs in Maternal Care"; **Thursday**—"Economics"; **Friday**—"Education". Topics for the afternoon sessions are: **Monday**—"Fetus and the Newborn"; **Tuesday**—"Cancer"; **Wednesday**—"Economics"; **Thursday**—"Education"; **Friday**—"General Summary of Findings of the Congress", by Dr. LeRoy A. Wilkes, Executive Officer of the Medical Society of New Jersey, Trenton, N. J.

In addition to the formal program, there will be a scientific and educational exhibit portraying the theme of human reproduction with its allied subjects of maternal and neonatal care, and a technical exhibit of obstetrical, gynecological and surgical instruments and equipment, pharmaceuticals, medical books and foods.

REGISTRATION FEE OF $5.00

Membership fee is $5.00, which includes registration at the Congress and a year's membership on the American Committee on Maternal Welfare. Applications for membership should be addressed to the Headquarters Office, 650 Rush St., Chicago, Ill.

Dr. Fred L. Adair, Chicago, is general chairman of the Congress. The chairman of the Medical Subcommittee is Dr. James R. McCord, Atlanta, Ga. Dr. W. R. Barney, Cleveland, is local chairman of the Committee on Arrangements; Dr. Walter W. Brand, Toledo, is state chairman for the Membership Committee, and Dr. Roy E. Krigbaum, Columbus, is state chairman for the Committee on Promotion and Arrangements.

Want Separate Boards

Among the approximately 800 bills introduced but not passed by the 93rd Ohio General Assembly were proposals to set up separate licensing boards for the following groups: auto and aircraft mechanics, livestock dealers, taxidermists, malt and cigarette vendors, watchmakers, foodhandlers, electrical workers, engineers and surveyors, architects, paper hangers and painters, steam engineers, contractors, itinerant merchants, and professional public library workers.

Eighth District Society Meeting at Rocky Glen Draws Many Members

For the twelfth consecutive year, members of the Eighth District of the Ohio State Medical Association were guests of Dr. Louis Mark and the Rocky Glen Sanatorium at McConnelsville, Thursday, June 15. The occasion also marked the 20th anniversary of the founding of the sanatorium.

H. A. Phillips, superintendent, welcomed the visitors following luncheon. Dr. George Gressle, Newark, president of the District, presided at the business session, at which Dr. Donald R. Sperry, Newark, read the minutes of the previous session. It was decided to hold the Fall Meeting in Lancaster. The new district officers are Dr. Carl Brown, Lancaster, president; Dr. J. M. Stenger, Lancaster, secretary; and Dr. George F. Swan, Cambridge, Councilor.

Prof. Wm. C. Craig, Capital University, Columbus, spoke at the luncheon on "Why We Laugh", and brief remarks were made by several of the guests including Dr. E. LeFever, Glouster, who represents Athens County in the State Legislature; Dr. Lee Humphrey, Malta, veteran member of the State Medical Board; Dr. Edmund R. Brush, Zanesville, former councilor for the Eighth District, and Dr. Swan. Dr. Mark presented watches, appropriately engraved, to five members who had been on his staff for 20 years. They were: Dr. D. G. Ralston, resident medical director; Mr. Phillips, Mrs. Wilhelmina Pennell, supervisor of nurses; Mrs. Lucille Richardson, assistant head nurse, and Miss Pearl Murray, of the nursing staff. On behalf of the staff and employees of the sanatorium, Mr. Phillips presented to Dr. Mark, a silver plaque in the shape of a shield, engraved with a picture of the administration building, as a memento of the occasion.

The scientific program consisted of the following addresses: "Relation of the Fertile Time to the Menstrual Cycle", by Dr. Theodore T. Zuck, acting professor of anatomy, Western Reserve University School of Medicine and Director of the Brush Foundation, Cleveland; "Stomach Disease from a Surgical Viewpoint", by Dr. Verne A. Dodd, professor of surgery, Ohio State University College of Medicine; and "Low Back Pains", by Dr. Judson D. Wilson, assistant professor of orthopedic surgery, Ohio State University College of Medicine. Attendance was approximately 350.

Columbus—Dr. Edward M. Gilliam and Dr. Jacob A. Stout were honored guests at the recent dedication of the new $100,000 wing to St. Anthony's Hospital. They have been members of the staff of the institution for over 50 years.

Do You Know - - -

The first news release of the Bureau of Public Education, an abstract of Dr. O. P. Kimball's paper on goiter prevention in the July issue of *The Ohio State Medical Journal*, was printed by about 40 newspapers throughout the state, and reached a total of three quarters of a million readers, conservatively estimated.

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A compulsory health insurance bill was defeated in the California State Assembly by a vote of 41 to 33.

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Dr. Stuart P. Cromer, a native of Columbus and member of the staff of the Council on Medical Education and Hospitals of the American Medical Association, has been appointed Dean of the University of Arkansas School of Medicine, Little Rock.

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Recent dedication ceremonies of the $750,000 building of the National Cancer Institute in Bethesda, Md., were attended by Dr. Mont R. Reid, Cincinnati, who is one of the six members of the National Advisory Cancer Council.

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The New York City Board of Health has granted the Metropolitan Life Insurance Company permission to purchase copies of death certificates at 50 cents each, the information obtained to be used for scientific purposes.

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Dr. J. K. Bailey, Dayton, is the new president of the National Eclectic Medical Association. The new president of the Ohio State Eclectic Medical Association is Dr. W. H. Gaskins, Amelia.

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From sixteen to eighteen thousand persons continue to die each year in the United States from appendicitis.

* * *

Dr. R. C. Engel, Cleveland, was elected a director of the American Association of Industrial Physicians and Surgeons at its recent annual meeting.

* * *

One of the speakers at the 170th annual meeting of the British Medical Association in Aberdeen, Scotland, July 21-28, was Dr. Winchell McK. Craig, Rochester, Minn., a native of Washington C.H. His subject was "The Surgical Treatment of Hypertension".

* * *

The statue, "The Charity Patient", which for many years stood in the office of the late Dr. Starling Loving, is now in the reference room of the Columbus Public Library, where Dr. Loving's portrait hangs.

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A program of postgraduate work in tuberculosis for Negro physicians and nurses will be possible through a $2,000 bequest to the Cincinnati Anti-Tuberculosis League from the estate of the late Mrs. George B. Cox.

* * *

Dr. W. E. Thompson observed his 104th birthday at Bethel, July 6.

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Capt. Harry G. Armstrong, Medical Corps, U.S. Army, stationed at Wright Field, Dayton, discussed "Mental Hazards During Wartime Flying" at the International Congress of Military Medicine and Pharmacy recent held in Washington, D.C.

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Dr. F. A. Hartley recently resigned from the medical staff of the Springfield City Hospital, terminating nearly 30 years of continuous service. Accepting a resolution unanimously adopted by members of the staff, City Manager Wilbur H. Story appointed Dr. Hartley a member emeritus.

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Dr. Seth Hattery, Massillon, recently celebrated his 90th birthday anniversary and the completion of 60 years in the practice of medicine.

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In accordance with the President's reorganization program, the U. S. Public Health Service on July 1 was placed under the administrative jurisdiction of the Federal Security Agency, after 141 years in the Treasury Department.

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Plans for requiring "rest homes" to provide adequate sanitation and a minimum of fire hazards were discussed by George B. Strain, director of the State Department of Industrial Relations; Dr. R. H. Markwith, state director of health, and Ray Gill, state fire marshal, at a recent conference in Columbus.

* * *

An analysis of blood tests required of applicants for marriage licenses from July 1, 1938, when the law went into effect, through December 31, reveals that less than 1 per cent of those examined had syphilis, the New York City Department of Health reports. Premarital tests were made on 58,903 persons, with positive results in 559, or 0.95 per cent. The percentage of infection among white persons was 0.61 and among Negroes 9.82.

In Memoriam

Henry A. Becker, M.D., Cleveland; Western Reserve University School of Medicine, Cleveland, 1894; aged 69; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died June 18. Dr. Becker practiced medicine in Cleveland for 42 years. He had been an active member of the Cleveland Academy of Medicine since 1897. After service in the Spanish-American War, he was made associate professor of surgery at Western Reserve Medical School and assistant surgeon at Lakeside Hospital. In 1901, Dr. Becker became visiting surgeon-in-chief at Fairview Park Hospital. He was assistant head of the surgical department of City Hospital and acted as surgeon for three leading railroad companies. Surviving are his widow and a son.

Cass A. **Bennett**, M.D., Withamsville; Medical College of Ohio, Cincinnati, 1878; aged 91; former member of the Ohio State Medical Association and the American Medical Association; died July 8. The son of a physician, Dr. Bennett retired two and one-half years ago after having practiced in Clermont County for nearly 60 years.

Carl Lane Cline, M.D., Dayton; Hahnemann Medical College and Hospital, Philadelphia, 1901; aged 62, former member of the Ohio State Medical Association and the American Medical Association; died June 22. Dr. Cline served overseas as a captain in the Medical Corps of the U. S. Army. He practiced in Dayton for 38 years. Dr. Cline was a member of the American Legion. Surviving are a son, a daughter and two brothers.

Henry Jackson Deaver, M.D., Sabetha, Kansas; Starling Medical College, Columbus, 1892; aged 73; member of the Kansas State Medical Society and the American Medical Association; died June 19. A native of Deavertown, Morgan County, Dr. Deaver practiced in Kansas for 30 years. Two sons survive.

Orland Vernon Donaldson, M.D., Gore; Starling Medical College, Columbus, 1901; former member of the Ohio State Medical Association and the American Medical Association; died June 23. Dr. Donaldson practiced in Columbus for four years, following which he practiced in Hocking County for 34 years. Prior to becoming ill a year ago, he was an ardent sportsman and was active in the civic affairs of his community. Surviving are his widow, a daughter, a son and a brother.

Lenore Leeds Doughty, M.D., Cincinnati; Miami Medical College, Cincinnati, 1906; aged 57; died July 5. Dr. Doughty practiced for several years prior to her marriage to Dr. William N. Doughty 25 years ago. Surviving, besides her husband, are her mother and a brother.

Henry Francis, M.D., Troy; Ohio State College of Medicine, 1939; aged 24; died July 4. Dr. Francis had just started his internship at St. Elizabeth's Hospital, Dayton. He was a member of Theta Kappa Phi fraternity and the Methodist Church. Surviving are his parents, Dr. and Mrs. Jesse B. Francis, Troy, and three brothers.

Karla Pauline Hahn, M.D., Cleveland; Christian-Albrechts-Universitat Medizinische Fakultat, Kiel, Prussia, 1924; aged 45; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 9. A member of the staffs of Deaconess and Lutheran Hospitals, Dr. Hahn practiced in Cleveland for 10 years. Her mother and a sister survive.

George Robert Hagerman, M.D., Kipton; Western Reserve University School of Medicine, Cleveland, 1880; aged 83; died June 6. Dr. Hagerman practiced in Oberlin for over 30 years. His widow and a son survive.

Frank Clarence Heffner, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1908; aged 53; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 10. Dr. Heffner practiced in Cincinnati for 23 years, and was a member of the staffs of Christ, General and Good Samaritan Hospitals. He had served as president and chief-of-staff at Good Samaritan Hospital. Surviving are his widow, his mother, and two brothers, one of whom is Dr. E. F. Heffner, Wapakoneta.

John Hermanies, M.D., Cincinnati; Drake University College of Medicine, Des Moines, 1913; aged 57; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 14. Dr. Hermanies, a native of Germany, for a time was assistant bacteriologist at Cincinnati General Hospital. He later went to Fresno, Calif., where he was stationed at the Fresno County Hospital. For the past 13 years, Dr. Hermanies was in general practice in Mariemont, a suburb of Cincinnati. He was a member of the Masonic Lodge. His widow, a son, a daughter, a brother and a sister survive.

Louis P. Linss, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1903; aged 70; member

of the Ohio State Medical Association and Fellow of the American Medical Association; died June 25. Dr. Linss practiced in Cincinnati for 35 years. His widow and a daughter survive.

Francis Hoeffer McMechan, M.D., Rocky River; Medical College of Ohio, Cincinnati, 1903; aged 60; member American Society of Anesthetists; former member of the Ohio State Medical Association and the American Medical Association; died June 29. Recognized as an authority on anesthesia, Dr. McMechan was editor of the *Journal of the International Anesthesia Research Society*, founder and editor of the quarterly supplement on anesthesia and analgesia of the *American Journal of Surgery*, and *Current Researches in Anesthesia and Analgesia*. From 1919 to 1923, he was editor of *The Ohio State Medical Journal*. Dr. McMechan began the practice of medicine in Cincinnati in 1903. Shortly thereafter he developed arthritis, but continued to be active in his field, locating in Cleveland in 1915. Dr. McMechan was secretary of the Associated Anesthetists of the United States and Canada. Surviving are his widow and a brother.

Mary E. McClain Neptune, M.D., Loudonville; Women's Medical College, Philadelphia, 1897; aged 71; died June 26. Dr. Neptune began the practice of medicine in Loudonville in 1897 with her father, the late Dr. S. W. McClain, retiring in 1929 because of ill health. Surviving are her husband, Dr. N. W. Neptune, Loudonville, and a son, Dr. Edgar M. Neptune, Syracuse, N. Y.

Allyn Cilley Poole, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1887; aged 79; former member of the Ohio State Medical Association and the American Medical Association; died June 27. A practicing physician in Cincinnati for over 50 years, Dr. Poole was a member of the original staff of Christ Hospital, of which he was secretary for 12 years. Art was his chief interest outside of medicine. He was widely known as a collector of prints and drawings, and was a director of the Cincinnati Art Museum and the Cincinnati Print and Drawing Circle. Dr. Poole was a member of the Christian Church. His brother and four sisters survive.

Charles Alvin Portz, M.D., Canton; Ohio Medical University, Columbus, 1905; aged 63; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 10. Dr. Portz practiced in Canton for 25 years, and previously was located in Baltic for a few years. He was a member of the Masonic Order, Optimist Club and the Reformed Church. His widow, two brothers and a sister survive.

Logan R. Pryor, M.D., Eaton; Pulte Medical College, Cincinnati, 1896; aged 66; former member of the Ohio State Medical Association and the American Medical Association; died May 14. Dr. Pryor practiced in Preble County for 40 years, retiring three years ago because of ill health. He was a member of the Masonic Order. His widow and a son survive.

William Robert Stephens, M.D., Toledo; Friedrick-Wilhelm-Universitat Medizinische Fakultat, Berlin, Prussia, 1903; aged 63; died May 28. Dr. Stephens located in Toledo in 1914, after having been chief medical examiner for an insurance company in Louisville, Ky., for 10 years. His widow survives.

Thomas Olearius Whitacre, M.D., Bowling Green; Rush Medical College, Chicago, 1906; aged 66; member of the Ohio State Medical Association and Fellow of the American Medical Association; died June 20. After practicing in Chicago for two years, Dr. Whitacre opened an office in Bowling Green, where he practiced for 30 years. Active in community affairs, he was mayor in 1932-33, having been elected on an independent ticket. Dr. Whitacre was a member of the Church of Christ, Chamber of Commerce and the Masonic Order. Surviving are his widow, a daughter, a son, Dr. H. E. Whitacre, Bowling Green, and a sister.

William Hervey White, M.D., Akron; Western Reserve University School of Medicine, Cleveland, 1903; aged 65; died June 30. Dr. White had practiced in Akron since 1919. He was formerly located in Cleveland. In 1918 he was chief medical examiner for the State Industrial Commission, having been appointed by Governor Frank B. Willis. His widow, three daughters, a sister and four brothers survive.

Attend Silicosis Conference

Dr. Sidney McCurdy, supervisor of the Medical Section of the State Industrial Commission, and members of the Commission's Silicosis Board attended a symposium on silicosis presented by Dr. L. U. Gardner and the Saranac Laboratories at Saranac Lake, N. Y., June 19-23. Members of the board are: Dr. Wm. M. Doughty, Cincinnati; Dr. Jos. A. Muenzer, Toledo, and Dr. Raymond C. McKay, Cleveland. Among the other Ohio physicians who attended the conference were: Dr. John U. Buchanan, and Dr. Morris W. Neidus, Youngstown; Dr. M. M. Shafer, Dayton; Dr. Chas. W. Thomas, Warren; Dr. H. A. Campbell, Newark; Dr. R. C. Engel, Dr. Edgar P. McNamee and Dr. M. A. Thomas, Cleveland. Approximately 100 physicians interested in silicosis and industrial health registered at the meeting.

Choosing a Collection Agency

STANLEY R. MAUCK

THIRD-PARTY collection efforts are to be used for professional accounts only as a last resort, after all other efforts fail.

However, there is a definite place for a collection service in the office of most physicians. The collection of accounts is a legitimate and respectable business enterprise and the successful operation of a collection service is a highly specialized work. Every field of business activity where credit transactions are involved is confronted with bad accounts. The use of collectors, either through attorneys or collection agencies, is an established business principle in all lines of commercial endeavor. In the professional field, likewise, there is a recognized and proper use for the professional collector.

Some physicians take the position that accounts should not be turned over for collection. This attitude is wrong as it lends encouragement to the abuse of the credit privilege on professional accounts and permits many debtors to repudiate just obligations which they should be compelled to pay. Furthermore, there is always a possibility of recovering a certain amount of cash from the bad accounts needing collection agency treatment. It is a peculiar trait of some people that they do not pay certain bills unless absolutely forced to do so, even though they may possess the ability to pay. This is particularly true of professional accounts, with which the irresponsible debtor has been accustomed to take unwarranted liberties. Both from the standpoint of their own personal remuneration and in the interest of breaking down the unfair attitude of the public toward physicians, bad accounts should be cleared through a responsible collection service as a final step to induce payment.

COLLECTION AGENCY SHOULD BE LAST RESORT

The primary consideration as to whether an account should be turned over to a collector is the certainty that it cannot be collected in any other manner. Too frequently accounts are turned over for collection merely because of their age, whereas, there has been little or no scientific follow-up to collect the account in its early stages of delinquency. The need for an outside collector would be greatly reduced if only the physician would follow sound business principles in handling his accounts. This series of articles has attempted to emphasize this need and offer suggestions as to how it may be done. It is an injustice to the patient to turn an account over for collection if the physician's own office has not used every possible means short of the less desirable third-party collection procedure.

Some physicians are reluctant to use a collection service because they regard all of them as ineffective. It is true that of the total amounts turned over for collection, whether they be professional accounts or accounts from commercial firms, the percentage of recovery is small. The very fact that these accounts are placed for collection indicates that they are regarded as more or less hopeless. There is a great variation in the return from collection accounts among different physicians. The age of the accounts, the type of the physician's clientele and the extent of the collection efforts pursued in his own offices are the determining factors. In not many instances, however, will the physician realize more than a 20 or 25 per cent return against the total volume of accounts turned in. The average is much more likely to be 10 per cent. When any group of accounts yields a return greater than 25 per cent there is usually a clear indictment of the doctor's own office for its lax collection efforts. The extent of recovery through a collection service is not always a fair basis of judging the merits of the agency. It is quite possible that the same agency may produce a so-called good result for one physician and a poor result for another. The difference, however, may be inherent in the type of accounts referred to the agency, rather than in the manner in which the accounts are handled.

Other physicians regard the use of a collection agency as unethical. This objection hardly deserves comment as it is just as essential that the "dead-beat" debtor of the physician be made to pay as well as the "dead-beat" commercial debtor. It is unethical, of course, to use a collector for the worthy delinquent, or in cases where the doctor's own carelessness results in an injustice to self-respecting patients who would have paid had the doctor himself not been so derelict in his business relations with these same patients. The question of ethics need not be disturbing to the physician so long as he confines the use of a collection agency to the accounts properly deserving this kind of treatment.

Again, physicians refrain from using collection agencies because they regard all such commercial agencies as crooked. This impression prevails because many physicians have been the victims of irresponsible or "shyster" collection agencies. The physicians themselves are in no small measure responsible for the operation of

such firms, as the gullibility of professional men invites entrapment by these agencies. If, however, the physician will select his collection service with the proper care he need not have any hesitancy in its use. Every line of endeavor has its crooks, and the mere fact that certain collection agencies do not operate on the level is no basis for condemning collection agencies in general. With the exercise of due precaution, there is but slight hazard in dealing with collection services. As has been pointed out repeatedly in previous articles in this *Journal*, it is usually safest to select a "local" agency rather than one that falls within the classification of a "nation-wide" agency. It would be unfair, however, to imply that all nation-wide agencies are "gyps", but many of the "gyps" are organized on a national scale and operate under high-pressure tactics over a wide area. Obviously, the crooked agency needs a larger field in which to work because it cannot count on repeat business from the same territory. These nation-wide agencies, operating from some big city headquarters, frequently employ high-pressure salesmen who carry a very convincing story of their operations to the physician. It is this type of agency which makes the appeal under the promise of "quick results", "unequaled low cost", "high percentage of returns", etc. It should always be remembered that extravagant promises of any kind bear careful investigation. Before turning accounts over to a collection headquarters in Chicago, St. Louis or New York, the true character of the agency should be thoroughly investigated.

LOCAL AGENCY SAFEST

The physician is usually best protected by referring his collection work to an agency of local character. Attorneys sometimes afford an effective collection service. In general, however, attorneys do not like to bother with the small accounts which constitute the bulk of the physician's collection work. Furthermore, unless an attorney is giving special attention to the collection of small accounts, with the proper set-up for handling the work, he is likely to let the accounts lie stagnant in his files. The collection of delinquent accounts requires a technique all its own and best results are usually obtained from agencies or individuals giving this type of service the organized effort demanded to produce results. The average local agency is easily investigated and is much more responsive to its clientele than is the so-called national agency. In general, it is more likely to produce higher collection results, even though it may be handicapped with the "prophet is not without honor save in its own country" characteristics. The agency to use is the one that will take your accounts and work them thoroughly for the maximum possible return and with assured, prompt settlement for all money collected. It is usually possible to find a reliable local agency that meets these requirements.

BE WARY OF CONTRACTS

Some of the "catch" inducements of nation-wide agencies were emphasized in an article in last month's *Journal* and are so obvious that they need no further comment here. It is fundamental to remember that any agency requesting a "contract" relationship for the collection of accounts should be regarded with caution. An article by the Bureau of Medical Economics of the American Medical Association makes the following statement on this point: "The nation-wide agency almost always has a contract and, if it does, this doubles the need for wariness on the part of the physician. The better agency almost never uses contracts and often makes it a point of business ethics not to have one, except on the request of the client."

The physician in the smaller cities and villages may raise the question as to how they are to use local collectors when none is available. This is, undoubtedly, a difficult problem for some physicians, although in Ohio there is hardly a county-seat town, or other nearby center of larger population, where some firm or individual is not specializing in the collection of delinquent accounts—and qualified to serve physicians. The term "local" agency is not to be interpreted as one in your own immediate vicinity. Quite frequently an agency that is several miles distant will render an effective collection service within a considerable radius of the center of its operations.

Physicians often complain about the cost of collections. True enough, there is a considerable sacrifice on all accounts that are collected through third-party efforts. However, a good collection service cannot be maintained without a legitimate return to the agency, and the average cost of collecting physicians' accounts through outside agencies is probably 40 per cent or better. This collection cost is inevitable, except in the case of some of the professionally controlled agencies in the larger centers where the private profit factor is entirely eliminated or considerably minimized. The cost of collecting through an agency, however, should not deter its use. A partial return on otherwise unproductive accounts is better than no return at all. Furthermore, it is better to pay a good agency a higher commission rate than to deal with the less effective or the irresponsible agency at a lower rate. The physician should remember that the degree of collectibility bears a direct ratio to the age of the account and that, therefore, he is only reducing his chances of a partial return when his bad accounts are held too long by reason of

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☐ Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245—"Pharmacology of Inflammation: III. Influence of Hygroscopic Agents on Irritation From Cigarette Smoke."

☐ N. Y. State Jour. Med. 1935, 35-No. 11,590—"Irritating Properties of Cigarette Smoke as Influenced by Hygroscopic Agents."

☐ Laryngoscope, 1935, XLV, No. 2, 149-154—"Some Clinical Observations on the Influence of Certain Hygroscopic Agents in Cigarettes."

☐ Laryngoscope, 1937, XLVII, 58-60—"Further Clinical Observations on the Influence of Hygroscopic Agents in Cigarettes."

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his reluctance to sacrifice the collection commission.

We might also call to the attention of the profession the practical use of the "personal" type of collector, where a suitable individual is available for this work. In such a relationship, the physician receives the benefit of an individual call upon each one of his debtors by a person who makes the contact as a representative of the physician's own office. Thus, there is avoided any possible offense that might be given if it appeared that the account had been turned over to a commercial collection agency. It may be possible to find a person who will do this type of work as a side line to other employment, or to someone who devotes full time to the outside collection work for a small group of clients, physicians and others. When diplomatically handled by the right party this is a very practical arrangement and offers the physician the opportunity for effective collection effort on accounts needing more attention than can be given by his own office staff.

In conclusion, we emphasize again that the use of a collection agency should be held to a minimum. Better business methods and a systematic follow-up of delinquent accounts in their early stages will greatly reduce the number that need a collection agency. But—**for the wilful debtor who defies all reasonable collection effort, for the one who does not conduct himself in an honorable manner toward a just obligation, the sterner procedure of a good collection service is clearly indicated.** There is a definite place in the physician's office for the services of a reliable collector. To neglect the proper use of these facilities only contributes to the widespread abuse of the public's financial dealings with the professional man.

Next month, "Impressions in a Doctor's Office".

THIS is the seventh of a series of articles on "Office Problems of the Physician" which will be presented in Volume 35 of The Ohio State Medical Journal.

Mr. Mauck, author of the series, serves as executive secretary of the Columbus Academy of Medicine and as director of the Columbus Bureau of Medical Economics. Previously he operated a professional management service for physicians.

Mr. Mauck invites questions or comments pertaining to the subjects discussed in these articles, and suggestions as to possible topics for future articles. Communications should be addressed to him at the Columbus Academy of Medicine, 79 E. State St., Columbus.

Second Annual Postgraduate Day of Columbus Academy Held June 22

The Second Annual Postgraduate Day of the Columbus Academy of Medicine was held at Scioto Country Club, June 22, with approximately 125 physicians in attendance. Dr. Wm. J. Engel, Cleveland, opened the afternoon session with an address on "Obstructive Lesions of the Urinary Tract in Infants and Children". Other speakers were: Dr. Donald Munro, assistant professor of neurological surgery, Harvard University Medical School, Cambridge, Mass., "Cervical and Spinal Cord Injuries"; and Dr. Harold G. Wolff, assistant professor of medicine, Cornell University Medical College, New York City, "Headache". Following a dinner at which Dr. George I. Nelson, president of the Academy, presided, Dr. Munroe spoke on "The Convalescent Care of Head Injuries", Dr. Wolff discussed "Bodily Changes During Emotional Stress", and Dr. Charles C. Higgins, Cleveland, gave an address on "A Review of the Transplantation of the Ureters in the Recto-Sigmoid". Dr. Robert C. Kirk was chairman of arrangements. He was assisted by Dr. Herman W. Koerper, Dr. George P. Sims, Dr. O. F. Roesnow and Dr. Jos. H. Shepard.

Operation of New Ohio Group Hospital Service Act Delayed by Litigation

Senate Bill 181, the enabling act for group hospitalization insurance, will not be on the ballot for a popular referendum in November, its opponents having failed to secure 147,000 signatures on their petitions by July 12, the effective date of the act. However, the law will not become operative until a court action filed on July 11 has been disposed of. Questioning the constitutionality of the measure, Nathan A. Mayer, a Columbus taxpayer, secured a restraining order from Judge Charles A. Leach, of the Franklin County Common Pleas Court, temporarily holding up operation of the act. A hearing will be held July 20 on Mayer's request for a permanent injunction, asking that John A. Lloyd, state superintendent of insurance, and Joseph T. Ferguson, state auditor, be restrained from putting the law into effect. The suit attacks the constitutionality of the provision in the law which authorizes the state auditor to deduct premium payments from the wages of state employees who enter into group hospitalization contracts and the section which exempts hospital service organizations from taxation.

PRESENT VITAMIN STANDARDS AND UNITS

● Early in this decade the first International Standards of Reference and Units for vitamins defined in terms of definite quantities of the standard materials were tentatively adopted by the Permanent Commission on Biological Standardization of the League of Nations. At subsequent meetings this Commission has replaced certain of the original standard materials by the pure vitamins or preparations considered to be better adapted as standards of reference. However, the new units defined in terms of the new standards represent approximately the same biological activities as the original International Units.

Believing that the present units and the standards of reference upon which they are based will be of interest, they have been tabulated and defined:

Vitamin A

The standard of reference (1) is a solution of purified beta-carotene in an inert oil, of such concentration that one gram of solution contains 300 micrograms (0.300 mg.) of beta-carotene. The International Unit of vitamin A is the vitamin A activity of 2 mg. of the standard solution, or 0.6 micrograms of beta-carotene.

Vitamin B_1

The reference standard (2) is the International Standard preparation of thiamin chloride. The International Unit for vitamin B_1 is the antineuritic activity of three micrograms (3γ) of the International Standard.

Vitamin C

The reference standard (1) for vitamin C is a specified sample of crystalline levo-ascorbic acid. The International Unit for vitamin C is the vitamin C activity of 0.05 mg. of this standard.

Vitamin D

The reference standard (1) for vitamin D is a solution of irradiated ergosterol, prepared under specified conditions at the National Institute for Medical Research (London). The International Unit for vitamin D is the vitamin D activity of 1.0 mg. of this standard solution.

The International System of expressing vitamin values will undoubtedly soon become official for all authoritative agencies which concern themselves with the establishment of vitamin standards and units. Reference standards for riboflavin and nicotinic acid—both of which are of significance in human nutrition—have not been defined. However, the use of units such as micrograms or milligrams of the crystalline compounds to express riboflavin and nicotinic acid values is becoming increasingly prevalent.

The use of vitamin units of definite value permits correlation of various phases of vitamin research, particularly those phases relating to the vitamin contents of common foods and to the quantitative human requirement for these essential food factors. Although vitamin supplementation of the diet may be desirable under certain circumstances, it is apparent (3) that a well planned mixed diet is most suitable for supplying optimal quantities of the vitamins along with the other essential nutrients. The established vitamin values of canned foods (4) serve as an indication of their usefulness in formulating such diets.

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(1) 1935. Nutrition Abstracts and Reviews, 4, 705.
(2) 1938. League of Nations Bulletin of the Health Organization, 7, 882.
(3) 1938. J. Am. Diet. Assn., 14, 1.
1938. J. Am. Diet. Assn., 14, 8.
(4) 1935. J. Home Econ., 27, 658.
1935. J. Nutrition, 9, 667.
1938. J. Am. Med. Assn., 110, 650.
1938. Nutrition Abstracts and Reviews, 8, 281.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

BUTLER

Twenty-eight members were present at a meeting of the Butler County Medical Society, Thursday evening, June 22, at the New England Kitchen, Oxford. State Senator Harry Hughes gave an interesting explanation of the passing of bills by the Legislature. Russell Knoop of the Farm Security Administration, spoke on "Loaning Money to Farmers".—Vera Coombs Iber, M.D., secretary.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Dr. Harold G. Wolff, assistant professor of medicine, Cornell University Medical School, New York City, discussed "Headaches" at a luncheon meeting of the Clark County Medical Society, Friday, June 23, at the Springfield Country Club. —News clipping.

GREENE

An interesting, amusing and thought-provoking paper on "How It Feels to be Sick" was read by Dr. Reyburn McClellan, at a meeting of the Greene County Medical Society, Thursday, July 6, at Xenia. The society endorsed a health booth which will be displayed at the County Fair by the County Board of Health.—Donald F. Kyle, M.D., secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

MARION

Dr. David Steel, Cleveland, spoke on "External Radiation in the Treatment of Cancer" at a meeting of the Marion Academy of Medicine, Tuesday night, June 6, at the Marion County Hospital.—News clipping.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

GEAUGA

The Geauga County Medical Society met with the president, Dr. Lucy Stone Hertzog, at Chardon, Wednesday, June 29. Dr. Edgar P. McNamee, Cleveland, gave an illustrated talk on "Cancer of the Lungs". Legislative matters were discussed by Dr. McNamee and members of the public relations and legislative committee. At a meeting of the society, May 31, at Burton, reports were given on the State Meeting at Toledo, and legislative problems discussed.—Isa Teed Cramton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

COLUMBIANA

Dr. Stanton Heck, Salem, who has just completed 50 years in the practice of medicine, was guest of honor at a testimonial dinner given by the Columbiana County Medical Society, Thurs-

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RADIUM

day evening, June 8, at the Valley Golf Club, East Palestine. Dr. Roy C. Costello, East Liverpool, president of the society, was toastmaster. Speakers included: Dr. J. M. McGeorge, Salem, Dr. Harry Bookwalter, Columbiana, and Dr. W. A. Hobbs, East Liverpool, who has a record of 55 years of practice. Approximately 35 members of the society attended the dinner. A golf tournament was held in the afternoon.—J. W. Schoolnic, M.D., Secretary.

STARK

Dr. Edward S. Folk, Mayor of Canton, was presented with a fine pen and pencil desk set by his medical colleagues as a token of their esteem, during the dinner program of the annual outing of the Stark County Medical Society, which was held at the Congress Lake. Club, Wednesday, June 28. The gift, arranged by the Canton Medical Library Association, was presented by Dr. L. E. Leavenworth, Canton, president of the association. Awards were also given to the winners in the women's bridge tournament and the men's golf matches. Golf prizes were awarded to Dr. G. D. Underwood, Navarre; Dr. J. J. South, Massillon; Dr. C. N. Clark, Dr. A. W. Warren, Dr. O. R. Clovis, Dr. Charles LaMont and Dr. Glenn Zeiders, Canton. Guests at the dinner, at which 240 persons were served, included George W. Branscomb and James Roberts, representatives from Stark County in the Ohio General Assembly. —Clair B. King, M.D., secretary.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

TUSCARAWAS

Members of the Tuscarawas County Medical Society enjoyed a swimming party at the home of Dr. W. R. Stager, Dover, Wednesday afternoon, July 12. Following a buffet supper, Dr. Max Shaweker, Dover, and Dr. Chas. J. Miller, New Philadelphia, discussed "Tuberculosis",—J. A. McCollam, M.D., correspondent for *The Journal.*

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

PERRY

Dr. D. G. Caudy, Zanesville, spoke on "Sulfapyridine Therapy" at a meeting of the Perry County Medical Society, Thursday noon, July 20, at the Park Hotel, New Lexington.—F. J. Crosbie, M.D., secretary.

WASHINGTON

Dr. H. M. Clodfelter, Columbus, spoke on "Arterial Diseases", at a dinner meeting of the Washington County Medical Society, Wednesday, July 12, at the Lafayette Hotel, Marietta. In his interesting address, Dr. Clodfelter laid particular stress upon coronary diseases, angina pectoris and its treatment. Three veteran Marietta physicians, Dr. F. E. McKim, Dr. E. W. Hill, Sr., and Dr. C. B. Ballard were present by special invitation. It was a great pleasure to have these gentlemen present. They have played no small part in the medical affairs of Washington County, and were active members of the Society in former years. Dr. C. E. Northrup, McConnelsville, and his son, Dr. Deane Northrup, who will soon open an office in Marietta, attended the meeting. The society also had the pleasure of receiving a new member, Dr. Thelma Hutchfield, who has recently located in the city.—David Sauer, M.D., secretary.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

Physicians in the new Eleventh Councilor District are invited to a "get-acquainted" meeting sponsored by the Lorain County Medical Society, at the Spring Valley Country Club, Elyria, Wednesday, September 13. A golf tournament is planned for the afternoon, followed by a dinner at which Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, will be the principal speaker.

MEDINA

Dr. S. Morgenroth, Akron, spoke on "Heart Examinations" at a meeting of the Medina County Medical Society, Thursday evening, June 13, at the Evanton, Medina.—News clipping.

Sound Film Available

"Testing the Drinking Driver" is the title of the new 20-minute sound slide film now ready for distribution by the National Safety Council. This film presents the proper procedure to follow in securing convictions of drivers who are under the influence of alcoholic liquor. Its purpose is to encourage the use of scientific tests for driver intoxication, such as chemical tests of body fluids or breath. The film can be borrowed free from the National Safety Council, except for transportation and insurance costs. Sound effects and voice are on a 12-inch disc, synchronized manually with the 35-mm. film. Requests for the film should be addressed to the National Safety Council, 20 North Wacker Drive, Chicago, Ill.

Columbus—Dr. Charles W. McGavran spoke on "Forty Years in the Practice of Medicine" at a recent meeting of the London Rotary Club.

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Special Board Examinations

American Board of Anesthesiology: An Affiliate of the American Board of Surgery. Written. Various places throughout the United States, Sept. 9. Oral. Part II. Philadelphia, Oct. 14-15. Sec., Dr. Paul M. Wood, 745 Fifth Ave., New York.

American Board of Dermatology and Syphilology: Written. Various large cities in the country, Oct. 9. Applications must be received by the Secretary by Sept. 1. Oral. Philadelphia, Nov. 3-4. Sec., Dr. C. Guy Lane, 416 Marlboro St., Boston.

American Board of Internal Medicine: Written. Various sections of the United States. Oct. 16 and Feb. 19. Formal application must be received before Aug. 20 for the Oct. examination and on or before Jan. 1 for the Feb. examination. Sec., Dr. William S. Middleton, 1301 University Ave., Madison, Wis.

American Board of Obstetrics and Gynecology: Written examination and review of case histories (Part I) for Group B candidates will be held in various cities of the United States and Canada, Jan. 6, 1940. Applications for admission to Group B, Part I, examinations must be on file not later than Oct. 4. General oral and pathological examinations (Part II) for all candidates (Groups A and B) will be conducted in Atlantic City, N.J., June 8-11, 1940. Applications for admission to Group A, Part II examinations must be on file not later than March 15, 1940. Sec. Dr. Paul Titus, 1015 Highland Bldg., Pittsburgh (6). After Jan. 1, 1942, there will be only one classification of candidates, and all will be required to take the Part I examinations (written paper and case records) and the Part II examinations (pathological and oral.

American Board of Ophthalmology: Written. April 6. Formal application must be received before January 1. Oral. Chicago, Oct. 7 and New York, June 10. Sec., Dr. John Green, 6830 Waterman Ave., St. Louis.

American Board of Orthopaedic Surgery: Boston, January. Applications must be filed on or before Nov. 1. Sec., Dr. Fremont A. Chandler, 6 N. Michigan Ave., Chicago.

American Board of Otolaryngology: Chicago, Oct. 6-7. Sec., Dr. W. P. Wherry, 1500 Medical Arts Bldg., Omaha.

American Board of Pathology: Memphis, Nov. 22-23. Sec., Dr. F. W. Hartman, Henry Ford Hospital, Detroit.

American Board of Psychiatry and Neurology: New York, December. Sec., Dr. Walter Freeman, 1028 Connecticut Ave. N.W., Washington, D. C.

American Board of Radiology: Atlanta, Ga., Dec. 9-11. Sec., Dr. Byrl R. Kirklin, 102-110 Second Avenue S.W., Rochester, Minnesota.

American Board of Surgery: Part I (Written). Simultaneously in various centers throughout the United States, Oct. 9. Applications must be received by the Secretary not later than Aug. 15. Sec., Dr. J. Stewart Rodman, 225 S. 15th St., Philadelphia.

Congress of Physical Therapy

The 18th annual scientific and clinical session of the American Congress of Physical Therapy will be held at the Hotel Pennsylvania, New York City, September 5-8. Preceding these sessions the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians, August 30-September 2. Registration for the seminar is limited to 100 and is by application only. Fee for the seminar is $25. There is no fee for attendance at the convention. The program has been arranged to permit ample time for visits to the World's Fair. For information concerning the seminar and the convention, address American Congress of Physical Therapy, 30 North Michigan Ave., Chicago, Ill.

Akron—Dr. R. G. Pearce spoke on "Socialization of Medicine" at a recent meeting of the Cuyahoga Falls Child Study Club.

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The Physician's Bookshelf

Public Health Law. James A. Tobey, Dr. P. H. LL.D. *Commonwealth Fund, New York City,* $3.50. A much-needed and up-to-date second edition of a book written originally in 1926 by the author—an expert in public health administration and a competent legal authority. It certainly is essential to every health officer and public health worker, and should be in the library of every physician for ready reference in view of the tremendous expansion in the scope and influence of public health activities. The work is so comprehensive that a detailed review cannot be attempted. In general, it may be said that the author has presented factual material dealing with laws and regulations pertaining to public health and public health administration, liberally sprinkled with court decisions and citations. The volume is simply and clearly written —a really modern and thorough treatise on a big subject.—Charles S. Nelson.

The Little Doc. By Frazer Hunt. *(Simon and Schuster, New York,* $2.00), is the story of Allan Roy Dafoe, M.D. This book is not a reprint of the stories of the Saturday Evening Post. It devotes more space to his early life, and is told in a human way with honest sentiment.

Sex Talks to Girls (Twelve Years and Older). By Irving David Steinhardt, M.D. *J. B. Lippincott Company, Philadelphia,* $1.50. This text which has been a standard one for its purpose for over 20 years, is now revised again and brought down to date. Proper sex hygiene teaching is more of a necessity now than ever before, and this book is recommended for sincerity and clearness. A good book to leave around in the home of a girl over twelve.

Symptoms and Signs in Clinical Medicine. An Introduction to Medical Diagnosis, by E. Noble Chamberlin, M.D., of Liverpool. (Second Edition). *(Wm. Wood and Company, Baltimore),* is just what its title implies. It maintains the high standard of the first edition and adds new material especially on the blood. Its selections and elimination seem wise, and altogether it is a most useful volume.

Clinical Bacteriology, by F. A. Knott, M.D., of Guys Hospital *(P. Blakiston's Sons, Philadelphia),* is a textbook for the medical student in which the facts of bacteriology and immunology are presented as a part of clinical pathology. It is fascinating on account of clarity and its conciseness.

The Log of a Lame Duck. By Audrey Alexandra Brown. *The Macmillan Company, New York,* $2.00. Is the experience of the author with arthritis. She, herself, had the malady some years before she went to Vancouver Island to a children's hospital, famous for its treatment of cripples. As a grown-up she was put in a ward of girls ranging from seven to thirteen years. Accepted by these youngsters, she has set down for us just what goes on in the mind of the crippled. It is a good lesson for any physician.

Whitla's Dictionary of Treatment, Including Medical and Surgical Therapeutics. Eighth Edition. By R. S. Allison, M.D., M.R.C.P. (Lond.) and C. A. Calvert, M.B., B. Ch., F.R.C.S. *Wm. Wood and Company, Baltimore,* $9.00. Begins with **abdomen,** injuries of, and goes then the whole gamut of disease conditions ending with yellow fever. Nothing but good can be said of a book in its eighth edition. Here in 1,245 pages is a remarkably complete encyclopedia of therapeutics.

Iodine and the Incidence of Goiter. By J. F. McClendon, *University of Minnesota Press, Minneapolis,* $5.00. Brings up to date all the data upon this important subject to which the author himself has made so many important contributions during the past 30 years. From all these data one fact stands out—i.e., iodine is an essential food element.

Civilization Against Cancer. By Clarence Cook Little, managing director of the American Society for the Control of Cancer. *Farrar and Rinehart, New York,* $1.50. Presents in simple terms what is known about this dreadful disease. With the militant attack upon it which the

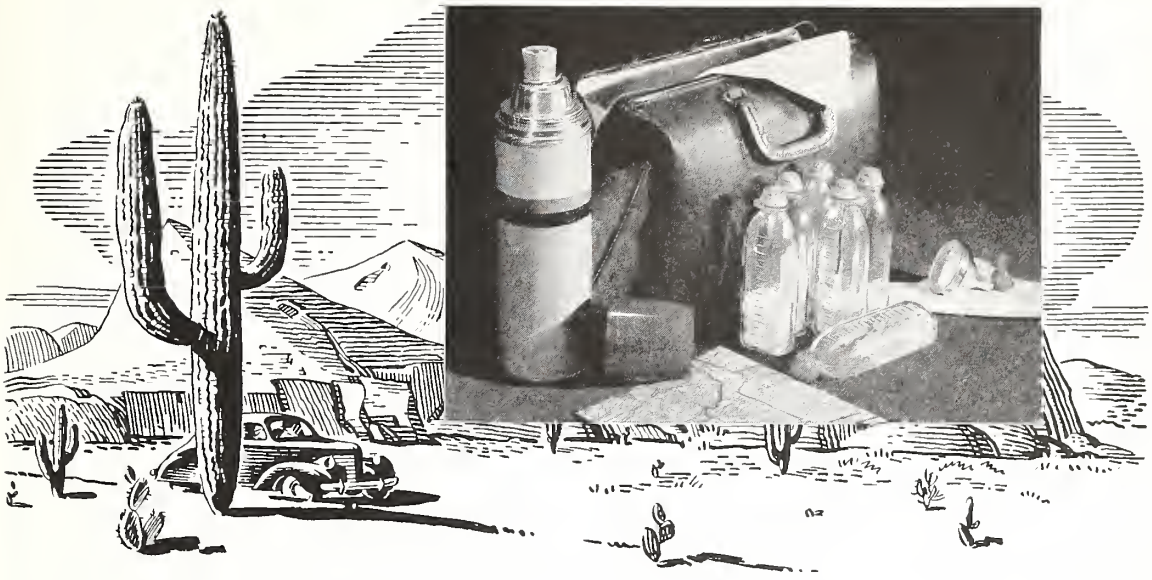
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The Doctor Prescribes Music. By Edward Podolsky, M.D. *Frederick A. Stokes Company, New York*, $1.50. Shows all the uses of music to affect the emotions and so to benefit the circulation, breathing, nervous system, metabolism and gland activity. It should prove helpful to all who have the responsibility of convalescent patients and chronic invalids. With these, music is a powerful aid in getting the patient to develop poise and a happy frame of mind so necessary to reparative processes.

Home Nursing and Child Care. By C. E. Turner, Nell Josephine Morgan, and Georgia B. Collins, *D. C. Heath and Company, Chicago*, $1.20. Is a well-written book for the junior high school student which teaches what it sets out to do.

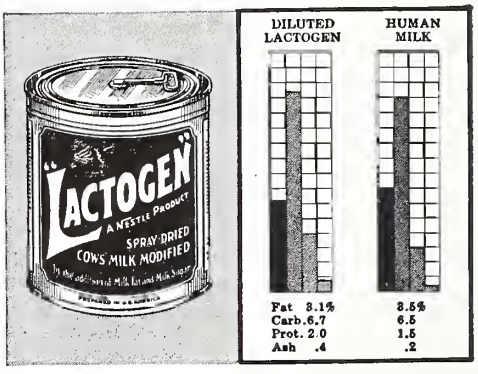
Handbook on Social Hygiene. By Long and Goldberg. *(Lea and Febiger, Philadelphia*, $4.00). Each of the nineteen contributors have made this book valuable not only to the general practitioner, but also to the public health worker, the social worker, nurses and others who are enlisted in the present campaign against venereal diseases. This book presents the medical, social, and legal aspects of venereology in a stimulating manner.—L. J. ROTH, M.D.

Keep Fit and Like It. By Dudley B. Reed, M.D., director of the Student Health Service, University of Chicago. *Whittlesey House, McGraw Hill, New York*, $2.50. Is an exposition of physical fitness from the viewpoint indicated in the title. The author persuades you that the job of keeping fit can be fun and, if you do keep fit, you are so much happier and efficient. It is a sane answer to the fad of physical culture in that it appropriates all that is good and rejects the foolish and bad.

Towards a Healthy America. By Paul de Kruif. Public Affairs Pamphlet, No. 31, *Public Affairs Committee, Inc.*, 10 cents. Is a mighty strong pamphlet supporting the thesis that we could with what we now know, if we would, make tuberculosis negligible, wipe out malaria in a dozen years, eliminate syphilis in one generation, reduce maternal deaths by two-thirds, and make a cut of one-third in the death rate from cancer and pneumonia. The author is, nevertheless, more conservative than usual. He pleads for the cooperation of all health agencies. He speaks well of the Detroit plan of Dr. Vaughan which your reviewer has become convinced is the only way

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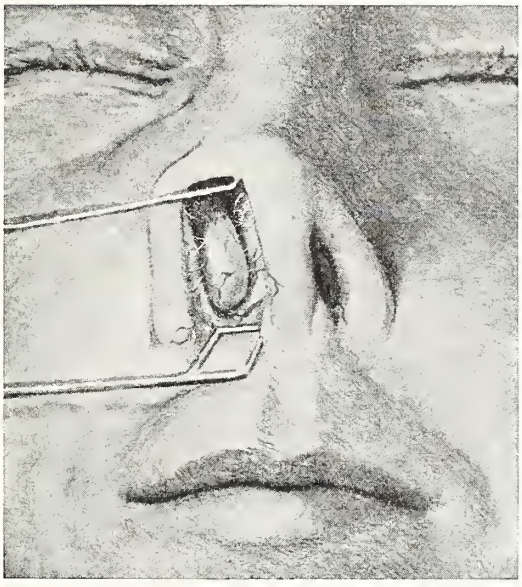


Fig. 1 — 1:45 P. M. Before treatment. Note extreme venous stasis and edema.

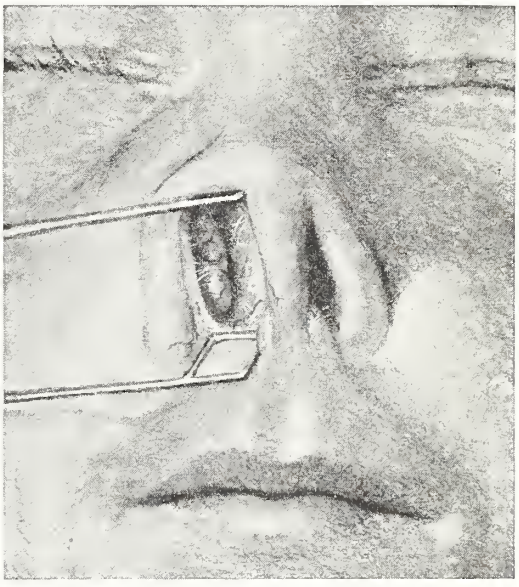


Fig. 2—2:07 P.M. After treatment with 'Benzedrine Inhaler'. Complete shrinkage and blanching.

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Recipes and Menus for Allergics; a Cook Book for the Harassed Housekeeper. By Myra May Haas and Nathan Schaffer, M.D. *Dodd, Mead and Company, New York*, $2.50. Your reviewer, who qualifies because he is a good cook, allergic to foods, and a practicing allergist, can recommend this cook book to those who are abnormally sensitive to the common foods.

Give Your Hair a Chance. A practical handbook for the care and preservation of the hair. John B. King, Sc.B. *Bradner, Cambridge, Mass.* After debunking most of the superstitions concerning the care of the hair, the book gives much usable information in as non-technical text as possible.

Health at Fifty. Edited by Dr. William H. Robey, *Harvard Press, Cambridge, Mass.*, $3.00. Sets forth twelve of the most popular of the recent free Sunday afternoon lectures at the Harvard Medical School. The preventive care of those over fifty is the profession's big task and this is about as good a text as one can find. In addition, it has the virtues of simplicity and clarity.

Clinical Biochemistry. By Abraham Cantarow, M.D. and Max Trumper, M.D. Second Edition. *W. B. Saunders Company, Philadelphia*, $6.00. Lives up to its title. It is not another student text on physiological chemistry but a book showing the practicing physician how dependent he is on biochemistry for his diagnosis. It deserves a place on the shelf of every alert physician.

Heroes of Health. By Charlotte Williams and Hazel A. Madison. *(Hall & McCreary Company, Chicago)* is an excellent supplementary reader in health education course for the more advanced classes. It presents from the human angle, such characters as Jenner, Pasteur, Nightingale, Koch, Trudeau, Walter Reed, Clara Barton, and Lord Lister.

Hospital Libraries. by E. Kathleen Jones *(American Library Association, Chicago,* $2.50). This stimulating monograph covers the hospital library in its original sense, its medical library and its nurses' school library, with all three of these now developing so rapidly. This book becomes a necessity to every hospital administrator, director of nurses' school, librarian, and staff man who proposes to serve on those committees

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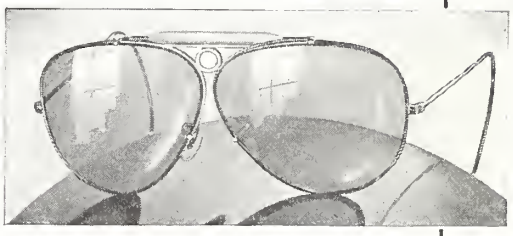
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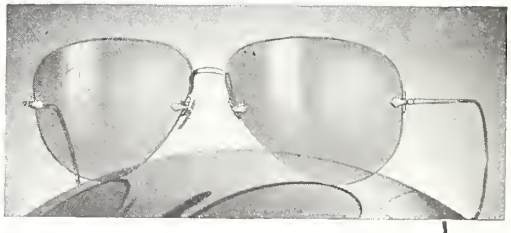
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having to do with this work. Aside from these technical details the book transmits to the reader some of the enthusiasm of the author and is a source of inspiration.

Clinical Gastroenterology. By Horace Wendell Soper, M.D. *C. V. Mosby Company, St. Louis,* $6.00. Represents the clinical experience of one of the masters in this specialty. Since this subject projects into the field of every physician, we can all read it with much profit.

African Notebook. By Albert Schweitzer, M.D. *(Henry Holt & Company, Inc., New York.* $2.00.) An interesting insight into the customs, superstitions, and type of people peculiar to region made famous by Trader Horn. Here these are described through the eyes of a German medical missionary who is both a good observer and a philosopher.

Hitch-Hiking With Jimmy Microbe. By Virginia and Drew Jacobson and Lyman L. Davis, M.D. *(Reilly and Lee Company, Chicago.* $1.00), dresses up sound bacteriological facts in a way that is nicely correlated with health so that they will make a lasting impression upon the mind of a child. Some of the subjects are the lactic acid bacillus, trench mouth, sinusitis, mastoiditis, acne, pimples, diphtheria, smallpox, botulism, the last under the representative name of the Rip Van Winkle Microbe.

Cancer Commission Studies of the California Medical Association. *(J. W. Stacey, Inc., San Francisco),* is a report of the society's authoritative committee. They state our knowledge on cancer and radiology, tumors of the various anatomical systems, and their metastases. It is a good summary of the clinical facts as to diagnosis and treatment.

The Story of the Lying-In-Hospital of the City of New York. By James A. Harrer, M.D., of its staff (published by the *Society of the Lying-In Hospital),* is a well written monograph. In telling the story of this institution from 1798 to the present day, the author gives us a good idea of the development of institutional obstetrics in the United States.

Standard Body Parts. Adjustment Guide; Traumatic Injuries; Medical Fees, Evaluations *(Insurance Statistical Service of North America, Chicago, Illinois,* single copy $8.00 including ten years' revision services), will be welcomed by all who deal with injuries and the adjustment. Its reception in our profession will be hearty because of its comprehensiveness.

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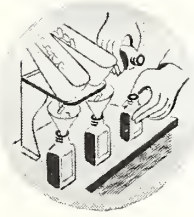


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every type of service; a description of injuries and their resultant disability periods; a persuasive percentage method for evaluating loss-of-use conditions; a digest of regulations evolved under compensation statutes. It will be revised at regular intervals and is therefore a loose-leaf book. It should have a place in the library of every traumatic, industrial physician and lawyer dealing with these cases.

Excellent Program Presented at School Health Institute at Ohio State

Approximately 500 physicians, school administrators, parents, teachers, dentists, school nurses, physical educators, psychologists and personnel officers attended the Second Annual School Health Institute at Ohio State University, Columbus, June 28-30. Arranged by Dr. John W. Wilce, director of the University Health Service, cooperating organizations included the Ohio Congress of Parents and Teachers; the University Health Council, University Health Service, the Colleges of Medicine and Education, the Department of Physical Education, the Summer Quarter Council, all of Ohio State University, the State Departments of Health and Education, and the Ohio State Medical Association.

The conference was opened by Dr. W. W. Bauer, Chicago, Ill., Director of the Bureau of Public Health Education of the American Medical Education, who discussed "Public Health Today and Tomorrow". Dr. Bauer also addressed a luncheon session on "The Place and Problems of School Health in the National Health Picture". Ohio physicians who appeared on the program included Dr. J. H. J. Upham, Dean of Ohio State University College of Medicine, who presided at the general session on the morning of June 30, and the following essayists and discussants: Dr. W. W. Ryall, health commissioner, Youngstown; Dr. R. H. Markwith, state director of health; Dr. Earl H. Baxter, Dr. Ruth St. John, Dr. George T. Harding, Dr. M. L. Ainsworth, Dr. B. F. Barney, Dr. Harlan Wilson, Dr. A. D. Frost, Dr. Russel G. Means, Dr. W. E. Duffee, Dr. Shirley Armstrong, and Dr. Wilce, Columbus; and Dr. Ann L. Buntin-Becker, Mariemont, Chairman for Social Hygiene, Ohio Congress of Parents and Teachers.

One of the features of the institute was the Health Exhibit, which included a number of mechanical exhibits and posters provided by the Bureau of Scientific Exhibit of the American Medical Association. Arrangements for this part of the exhibit were made through the State Headquarters Office of the Ohio State Medical Association.

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*Charles J. Marshall, New York State Journal of Medicine, Vol. 34, Aug. 15, 1934.

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News Notes

Ada—Dr. John Kramer, Columbus, is the new head of the student health service at Ohio Northern University, succeeding Dr. Harry Wain, recently appointed health commissioner of Shelby County.

Cleveland—Dr. G. W. Brugler, Columbus, is the new assistant to the director of University Hospitals, Dr. R. H. Bishop, Jr.

Columbus—"The Heart", was the subject discussed by Dr. Robin Obetz at a recent meeting of the Ross County Branch of the Ohio State Nurses' Association at Chillicothe.

Conneaut—A lecture on "Social Hygiene" was made by Dr. John E. Rauschkolb, Cleveland, at a recent meeting of the P.T.A.

Delaware—Steps are being taken to combine the local city and county health departments.

Galion—Dr. Paul A. Murr, who has been in ill health, recently retired from the practice of medicine. Dr. Murr is president of the local Board of Education.

Hamilton—Approximately a million dollars may be available from the estate of the late Eugene Howard Hughes to construct a Butler County hospital for contagious and infectious diseases.

Lima—Dr. John LoCricchio spoke on "Cancer" at a recent meeting of the Cooperative Club.

Medina—Dr. I. B. Kievit has resigned as health commissioner of Medina County.

Norwood—Dr. William B. Carmon recently became a member of the local Board of Health.

Sandusky—Dr. Gilbert F. Thompson, head physician at the Ohio Soldiers and Sailors' Home retired July 1, after more than 24 years on the institution's staff.

Springfield—An illustrated lecture on his recent trip to Alaska was made by Dr. G. C. Ullery at a recent meeting of the Jamestown Cooperative Club.

Tiffin—Dr. M. J. Thomas, who recently completed a year's residency in eye, ear, nose and throat at University Hospital and eight months in basic science otolaryngology at St. Louis, has located here. Dr. Thomas, a former secretary of the Ashland County Medical Society, was in general practice in Attica and Jeromesville for eight years.

Xenia—Dr. Ernest W. Ekermeyer, for the last five years resident physician at the Ohio Soldiers' and Sailors' Orphans' Home Hospital, has entered the private practice of medicine in Tallahassee, Florida.

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The Ohio State Medical Journal

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Vol. 35 September, 1939 No. 9

JONATHAN FORMAN, M.D., *Editor*

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The Present Status of Silicosis

A. J. LANZA, M.D.

SILICOSIS has been so much to the forefront in industrial and medical circles in the last few years, besides receiving a most unusual amount of general publicity, that an appraisal of the silicosis situation is opportune.

As evidence of the attention that has been focussed on this industrial disease, there may be mentioned the National Silicosis Conference held in Washington under the auspices of the Department of Labor, the proceedings of which were published in 1938. The interest of a number of industrialists in control measures of air borne occupational diseases, particularly silicosis, resulted in the creation of the Air Hygiene Foundation, with headquarters in Pittsburgh. The Medical Committee of this Foundation has also published a comprehensive Bulletin on Silicosis and Allied Disorders.

Under the auspices of the Saranac Laboratory for the Study of Tuberculosis, there have been several symposiums on silicosis, the proceedings of which have been published, and another one is to be held in June of this year. Research has been active and the literature on silicosis in medical and technical journals has grown until it threatens to displace lead poisoning from first place.

Naturally, the first question that occurs to the interested physician, particularly if his mind has a public health bent, is how much silicosis is there. At once, we strike a major defect in our health system in that information of this basic nature is not forthcoming. In the past, and at present also, mortality statistics dealing with pulmonary diseases include silicosis under the heading "all others". I understand that the international classification of the causes of death may be amended before long to include an item on tuberculosis and silicosis under tuberculosis, and also silicosis by itself. It will be some time before this affects our statistical information.

A couple of years ago, Mr. Vane and I estimated that there were about 500,000 persons exposed to silica dust in various industries in this country—a very conservative estimate. The Public Health Service thinks the figure is nearer a million. I mention this to show that the reservoir from which cases of silicosis might be drawn is a large one. A few states have laws requiring the reporting of cases of occupational disease to the State Health or Labor authorities but as this procedure is not uniform, it does not give us a great deal of information. It, therefore, seemed to me that possibly the best source of information would be the records of workmen's compensation claims paid.

If I may digress for a moment, one of the most conspicious and far reaching results of recent interest in silicosis was the enactment of workmen's compensation laws to cover this disease. Seventeen states, which include the chief indus-

The Author

● Dr. Lanza, New York City, is a graduate of George Washington Medical School, 1906; member American Public Health Association, National Tuberculosis Association; consultant to New York Postgraduate Hospital; assistant medical director, Metropolitan Life Insurance Company.

Read before the First General Session, Ohio State Medical Association at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

trial states and the District of Columbia, now compensate for silicosis. Most of these laws are recent, but you will remember, I am sure, the considerable agitation that was manifested by legislative committees, insurance companies, and others, because it was felt that following the enactment of compensation for silicosis, there would be such a swarm of claims as would seriously affect the financial resources of the agencies underwriting this form of compensation and would make premiums prohibitive to the employer.

I corresponded with the state authorities of several states and asked if they could inform me how many claims had been awarded for silicosis in 1937 and 1938. The information from Ohio was most complete and I am indebted to Dr. Kenneth Smith, Chief of the Bureau of Occupational Disease, for a comprehensive and informative statement. In 1937 (prior to the effective date of the silicosis law), up to August 1, 19 cases of silicosis were reported to the Ohio Department of Health. In the remaining five months of 1937, 21 cases, making 40 in all, were reported. In 1938, 141 cases were reported. This does not mean compensation claims because, as Dr. Smith points out, not all of these cases were found to be silicosis on further examination by Department officials.

To Dr. McCurdy, Supervisor of the Medical Section of the Ohio Industrial Commission, I am also indebted for a complete statement. From July 31, 1937, to December 20, 1938 (17 months), 19 claims for silicosis were allowed. During this period, 146 claims were filed, 75 of which were submitted for action and, of these, 56 were disallowed. Some of these presumably had silicosis but did not come within the scope of the law.

Through the courtesy of Mr. Henderson, Assistant Secretary of the Massachusetts Industrial Accident Board and of Mr. Bowditch, Director of the Division of Occupational Hygiene of the State Department of Labor, I received the following figures for the year ending June 30, 1937:

Silicosis cases compensated	11
Silicosis cases rejected	1
Silicosis cases not presented	2
Total	14

For the year ending June 30, 1938, the figures are:

Silicosis cases compensated	7
Silicosis cases pending	5
Silicosis cases known to the Board but not filed	2
Total	14

(Granite industry not included).

It should be noted that Massachusetts has had compensation for occupational diseases for many years, hence any question of unfamiliarity or newness does not arise here.

In New York State, there were, during 1937, 13 closed compensated cases with about $9,500 paid in compensation. The figures for 1938 are not yet available.

In North Carolina, I was informed by the former Commissioner of Compensation, since 1935 there have been less than a dozen cases of silicosis compensated.

In one other instance, no information was forthcoming as apparently the records were not kept in such form as to make the information readily available.

These figures are enlightening. Obviously, they cannot be taken to indicate all the cases of silicosis in these states yet they probably represent a considerable portion of severe cases with complete or nearly complete disability. In several states, a sliding scale of benefits was incorporated into the law with the hope that this would tend to keep the silicotic who had little or no disability on the job. The legislators felt that as long as he was in fair shape, and with the further expectation that dusty working places would be cleaned up, his interests and the interests of the community were best served by his continuing to work rather than going on disability. Apparently, this procedure has worked out as intended.

A state official, with many years' experience in compensation administration, made the following observation: "Accidental injury produces disability suddenly; this may be complete from the start, but then tends to improve until full ability is regained. Chronic occupational diseases cause the victims to progress slowly from full ability to partial and then complete disability. When complete disability is reached, it is apt to be permanent. The average workman will resist disability under these circumstances as long as he can hang on to his job". However, the detection, reporting, and tabulating of occupational diseases, including silicosis, leaves much to be desired. Different states compile their statistics in different ways so that comparison is difficult even where figures are available. I understand this will engage the attention of the Association of Governmental Industrial Hygienists, under the auspices of the United States Public Health Service, and will also be given consideration by the Council on Industrial Health of the American Medical Association.

PREVENTION

A great deal of experimentation has been done with regard to controlling dusts by engineering methods and many marked improvements have been noted. The combination of adequate ventila-

tion, assisted in many instances by the use of water, has reduced dust counts far below what was thought possible a few years ago. At the same time, much work is being done in improving methods of estimating the amount of dust present in the air of working places in a simple and accurate manner.

A recent and very interesting piece of research is that carried on in Canada with respect to "protector" dusts. It has been demonstrated that experimental animals can be protected from the effects of inhaling silica dust if a minute quantity of dust of metallic aluminum is added. Whether this has practical application in industry remains to be seen. Certainly the workman is entitled to breathe air free from injurious substances and the provision of reasonably pure air is a responsibility of employers; the addition of a still further impurity hardly seems the method of choice. There is also the possibility that long continued inhalation of a silica-aluminum mixture may not be desirable.

Physical examinations, particularly pre-employment examinations, are becoming more and more widely practiced and also their quality is improving. Of necessity, the chest examination must be thorough if it is to be worth anything at all and this implies the use of the X-ray and the fluoroscope.

The Air Hygiene Foundation supported a research on roentgenography with the aim of improving technique and usage in industrial practice, especially where large groups of men are involved. S. R. Warren of the University of Pennsylvania and his associates, who undertook this study, made a detailed and carefully controlled comparison of the use of X-ray films and X-ray paper. Their results were in turn studied by 35 of the leading roentgenologists in this country. Warren reported:

> "It is apparent from the data so obtained that paper roentgenograms may be used for survey work if the technique is at least equal to that used in the tests and if means are available for following up suspicious cases by the use of stereoscopic roentgenograms on X-ray film. This conclusion is qualified by the fact, noted by most of the men who examined the films, that X-ray film has a wider range of density than X-ray paper. In conclusion, the results of this survey are interpreted in terms of the practical procedure necessary in industrial survey work."

A committee of physicians in Wisconsin, at the request of the State Industrial Commission, has prepared a code of principles and procedures to govern physical examinations in industry which is most thoughtfully stated.

This proposed code provides for the use of the X-ray and for the Wasserman test, urinalysis, and hemoglobin determination on pre-employment examinations and provides further that the examination be made by the employer's physician at the employer's expense. If, however, the applicant feels that he has a grievance against the examining physician, he may appeal to the Industrial Commission and if the grievance is sustained, the Commission will order the examination to be made by another physician.

Periodic examinations every two years are also established by this proposal, such examinations to be similar in scope to the pre-employment examination. At the discretion of the physician, periodic examinations may be made more frequently. Standardized record forms are provided. A section of this report is to be filled out and given to the employer and to the employee or applicant. Upon request, a copy of the findings may be sent to the examinee's family physician. Finally, there is listed those diseased conditions which shall be considered as a bar to employment. Here, again, much is left to the judgment of the physician.

This plan, while primarily arising out of the problems of silicosis and silicosis compensation, is to apply to industry as a whole.

ETIOLOGY

While there is nothing basically new in the concept of the etiology of silicosis, continued industrial studies and laboratory work have given us a clearer idea of a number of etiological factors which, in turn, has helped to clear up some of the apparent inconsistencies in clinical observations. Early studies in silicosis, starting about 25 years ago, were made in industries where the silica hazard was very severe and produced the type of silicosis which we call "classical". These extreme conditions of dust exposure have been generally overcome; on the other hand, further studies have shown that there are different types of hazards in different industries. We are accustomed to say that silicosis is due to the inhalation of dust containing free silica and in the early studies, the dust was fairly homogeneous and consisted mostly of silica and this produced a definite clinical pattern which was described by investigators all over the world.

Then came the realization that silica hazards were present in many industries but the dusts in question were not homogeneous, and that while they did contain free silica in various degrees, they also contained other substances and consequently, the clinical picture varied according to the nature of these dusts. Some brilliant research has been carried out in this field by the Saranac Laboratory for the Study of Tuberculosis and the United States Public Health Service. I commend to your attention the article

by Dr. Gardner on the "Etiology of Pneumoconiosis" in the Journal of the American Medical Association for November 19, 1938.

The interplay of silica and tubercle infection has been studied in many industries. I believe that it may safely be said that the silica hazard, as it is found in industries in this country at the present time, produces little disability in the absence of tubercle infection. What the relationship between silica and tubercle may be is still unknown but there is no getting away from the records of surveys and of clinical studies, all over the world, which have established this relationship, nor from the vital statistics which consistently bear witness to the high death rate from tuberculosis among those exposed to silica dust.

The United States Public Health Service has recently published Bulletin 224, "Silicosis and Lead Poisoning Among Pottery Workers". They describe two fatal cases of uncomplicated silicosis but also state that among silicotic pottery workers, tuberculosis was three times as prevalent as among non-silicotic pottery workers.

DIAGNOSIS

The diagnosis of silicosis presents no new features of special import. The X-ray is still the indispensable aid. As industrial studies have broadened, they have emphasized the necessity of considering the nature and degree of exposure, not only with respect to the present occupation but also, where possible, previous occupations. You cannot know a disease unless you know its etiology and the etiology of an occupational disease lies in the factory and in the workshop and understanding it implies a knowledge of working conditions. The period necessary for the development of silicosis is tending to lengthen as improvement in the control of air dustiness is carried on. A diagnosis of silicosis with a duration of exposure limited to months rather than years should be viewed with suspicion.

The failure to evaluate working conditions leads to two errors. One is the unjustified diagnosis which would not have been made had the nature and duration of the job been adequately considered. The other is the missed diagnosis, and for the same reason.

With respect to the estimation of disability, we are still confined to rule of thumb methods and the experience and judgment of the examining physician is the best guarantee of fairness. Perhaps it will always be so. Investigation of methods of estimating disability has been carried on for some years and in this field of research, McCann and Schlomovitz and their associates have been most active. Estimation of lung capacity, oxygen consumption, velocity of blood flow through the lungs and computations based on X-ray measurements are among the different phases of these studies. It does not seem that as yet there are tests available from these sources which can be used for the estimation of disability in compensation cases. As Gardner states: "The degree of disability is not proportional to the extent and severity of the anatomical changes observed in the roentgenogram. Disability can be measured only by observation and physical examination of the workman".*

SILICOSIS AND HEART DISEASE

Of late, silicosis as a cause of heart disease has received an increasing amount of attention. It may be said that in the numerous investigations of silicosis among workmen in various industries, there has not been apparent clinically any undue prevalence of heart disease nor in fact, any tangible evidence linking these two conditions. Even in those cases where dyspnea had begun to impair working ability, evidence of cardiac complications was not found to any appreciable extent nor do roentgenoograms of silicotic workmen show a prevalence of enlarged hearts. The recent study of silicosis among pottery workers, by the United States Public Health Service, failed to disclose heart disease in silicotics though this was carefully sought for.

Investigations made in the last few years have shown that in some industries there is a silica hazard of a degree which will eventually produce a definite silicosis, apparent on the X-ray film but not of sufficient intensity to produce disability within the average working life. There is probably more of this type of uncomplicated nondisabling silicosis than is realized. On the other hand, it must be remembered that heart disease is the chief cause of death in all ranks of society. Consequently, it is to be expected that the principal cause of death among these now-disabled silicotics who do not become tuberculous will be heart disease, but this is not to say that silicosis causes heart disease.

Since more attention has been paid to the subject, it is not uncommon to find evidence of silicosis in older workmen with cardiac and cardiovascular disease who come to general hospitals. These patients uniformly give unsatisfactory occupational histories; many of them do not realize that they have, at some time in the past, been exposed to silica dust. There is usually no way of determining whether their cardiac disease antedated their silica exposure or came later.

Apparently authentic cases have been reported of right heart failure in silicotics with massive pulmonary fibrosis, but it can hardly be said that there is evidence at the present time that cardiac disease resulting from silicosis is a common occurrence.

*Gardner, L. U.: Medical Control of Silicosis and Tuberculo-silicosis. Surg., Gyn. & Obstet. 2-15-39, 68:579-582.

Fainting Attacks–The Mechanism and Treatment of Certain Clinical Types

EUGENE B. FERRIS, JR., M.D.

THE time limit of the program and your patience will not permit a detailed discussion of fainting. Such a discussion would of necessity be long, because so little of a fundamental nature is known about the numerous etiological types of fainting which have been reported in the literature.

My coworkers and I[1] have been particularly interested in the cerebral and peripheral circulatory changes which occur in various types of syncope, and have made studies on a large number of patients suffering from fainting attacks of varying etiology. In many instances we were able to make studies during the development of the attack. These studies indicate that the primary circulatory changes responsible for unconsciousness in these cases can be separated into a few definite groups. In so far as specific treatment is concerned, with few exceptions, it must be directed toward preventing these circulatory changes. For this reason an understanding of the circulation during fainting attacks is necessary. In general, fainting is usually caused by acute anoxia of the brain, but in a number of cases we have been unable to find any change in the peripheral circulation or in the cerebral circulation to explain the attack, evidence which suggests that certain types of fainting may occur in the absence of cerebral anoxemia.

A brief description of two etiological types of faints will help in understanding all the circulatory changes which we have encountered. I refer to syncope due to a hypersensitive carotid sinus and to postural syncope.

The carotid sinus, as you know, is located high in the neck at the bifurcation of each common carotid artery. Within the wall of the vessels in this region are many sensory nerve endings which respond to changes in intra-arterial pressure and to various chemical stimuli contained in the blood. Besides several other known functions, the carotid sinus serves to maintain a constant cerebral blood flow by reflex regulation of the peripheral circulation; consequently, nerve impulses from this region can cause marked variation in the heart rate and in peripheral blood pressure.

When the carotid sinus is hypersensitive, usually as the result of local pathological or functional changes, mechanical pressure from without the arterial wall may set off impulses from this region which produce profound changes in the heart rate and blood pressure. In certain of these patients, we have shown that such impulses may result in spontaneous fainting attacks which can be reproduced at will by pressure over the sensitive carotid sinus. This mechanical stimulation is effected by pressing the carotid artery, at the region of the bifurcation, against the spine and massaging with the fingers for 5 to 15 seconds. Only one side is tested at a given time.

We have found that three clear cut circulatory types of fainting may result from this single mechanism (Table I): (1) The vagal type, (2) the depressor type, and (3) the cerebral type. In the vagal type, fainting is due to cerebral anoxemia, resulting from cardiac asystole. The asystole is due to vagal stimulation and can therefore be prevented with atropin. Adrenalin or ephedrin will also prevent sufficient slowing to cause syncope but will not prevent the heart block. In the depressor type, cerebral anoxemia is due to a fall in blood pressure primarily. Atropin

TABLE I.

The 3 Types of Carotid Sinus Syncope

Vagal	Cardiac Asystole Cerebral Anoxemia Abolished by Atropin or Adrenalin	Combinations of These Types
Depressor	Fall in Blood Pressure Cerebral Anoxemia Abolished by Adrenalin	
Cerebral	Normal Heart Rate and Blood Pressure Normal Total Cerebral Bloodflow Not Influenced by Drugs	

The Author

● Dr. Ferris, Jr., Cincinnati, Ohio, is a graduate of the University of Virginia, Department of Medicine, 1930; member Central Society for Clinical Research; American Society for Clinical Investigation; assistant attending physician, Cincinnati General Hospital; assistant professor of medicine, University of Cincinnati College of Medicine.

Read before the Section on Medicine, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

has no effect on this type but adrenalin or ephedrin will prevent it. The fall in blood pressure is probably due to reflex arteriolar dilatation and it is to be expected that the adrenergic drugs would counteract this dilatation. In the third or cerebral type, fainting occurs without any change in the blood pressure or heart rate and apparently without any change in the total flow of blood to the brain. None of the previously mentioned drugs will prevent this reaction. In eight patients, surgical denervation of the sensitive carotid sinus has prevented further spontaneous or induced attacks. Capps[2] has obtained some beneficial results from

and rise in pulse rate. Often the heart rate falls precipitously at the moment syncope occurs. Weiss et al.[3] have shown that atropin will prevent this bradycardia but will not prevent syncope. They have also shown that adrenalin will not prevent syncope and have concluded that the fall in blood pressure is due to pooling of blood in the peripheral veins. Sodium nitrite seems to decrease the venous tone so that the effect of increasing hydrostatic pressure, by assuming the upright position, is to cause the veins in the lower part of the body to stretch and to hold more blood than under normal conditions. Consequently, less blood returns to the heart and

TABLE II.

Fainting attacks classified according to the circulatory changes responsible for unconsciousness.

Classification	Treatment
A. SYNCOPE WITHOUT CHANGE IN CIRCULATION Including the cerebral type of carotid sinus syncope and so-called psychogenic syncope.	Non-specific measures; surgical denervation of the sensitive carotid sinus in selected cases.
B. SYNCOPE WITH CEREBRAL ANOXIA DUE TO SUDDEN CIRCULATORY COLLAPSE	
(1) **Primary cardiac failure**	
a. Reflex slowing or asystole, including the vagal type of carotid sinus syncope, vagovagal reflexes from the eyeball, esophagus, bronchi, pleura, etc., and certain types of "vasovagal" syncope.	Atropin; adrenergic drugs.*
b. Asystole or slowing due to myocardial disease, including Stokes-Adams disease.	Adrenergic drugs.
c. Diminished cardiac output without slowing or asystole, including ventricular arrhythmias, myocardial infarction, pericardial tamponade and sudden failure.	Treat the specific cause.
(2) **Primary peripheral circulatory failure**	
a. Arteriolar vasodilation, including the depressor type of carotid sinus syncope, postural hypotension and certain examples of psychogenic origin.	Adrenergic drugs.
b. Venous pooling of blood, including orthostatic syncope sodium nitrite syncope and heat prostration.	Trendelenburg position; nonspecific preventive measures.

*These include: epinephrin, ephedrin and benzedrine.

ammonium chloride in this group and is now studying its therapeutic value further. Thus, from one sensory area, the carotid sinus, fainting may be induced by one of three distinct mechanisms, namely, cardiac asystole, a fall in blood pressure due to arteriolar dilatation, and without any change in the peripheral circulation.

The other type of fainting which contributes basic information to the subject is orthostatic syncope. (Fig. 1.) If a patient is given a small amount (1½ grains) of sodium nitrite, strapped to a tilting table and tilted to the upright position, syncope will occur. Some individuals will faint without administering sodium nitrite. There is a progressive fall in blood pressure

the arterial pressure falls. There seems to be no specific drug which will prevent this reaction. Abdominal and leg binders will help but will not completely abolish the symptoms. The reaction can often be prevented if the patient moves about or shifts his weight from one foot to the other, in this way aiding venous return.

In all attacks on which the mechanism of syncope was clear, the circulatory changes responsible have fallen into one of the above described groups. First, fainting attacks may be grouped in regard to the absence or presence of cerebral anoxemia. In the second group, cerebral anoxemia may be primarily due to cardiac disturbances or primarily to changes in the peripheral circula-

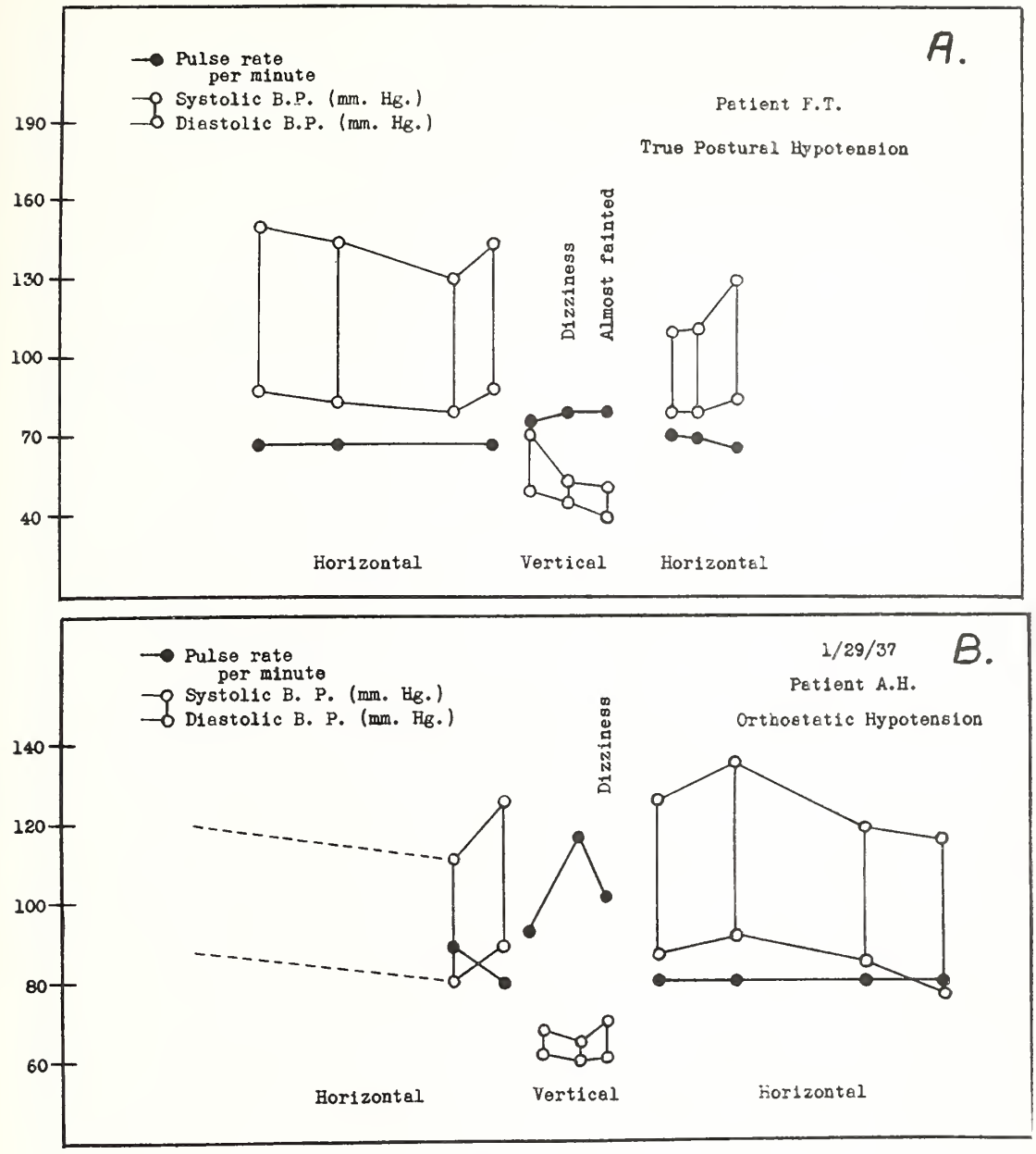


FIGURE I.

The upper figure (A) shows the blood pressure and pulse rate changes in a patient suffering with postural hypotension. Note the relatively slight change in pulse rate which occurred when the patient was tilted to an upright position. His attacks of dizziness and fainting are prevented by the administration of ephedrine sulfate gr.ss with Luminol gr.ss t.i.d.

The lower figure (B) shows the circulatory changes in a patient suffering with orthostatic syncope. The syndrome appeared in association with the chronic upper respiratory infection and with malnutrition. The administration of adrenalin or ephedrin accentuated the symptoms. The syndrome disappeared completely following a period of bed rest and an adequate diet.

tion with a fall in blood pressure. In this latter group, the fall in blood pressure may be due to arteriolar dilatation or to a pooling of blood in the veins. (Table II.)

TYPES OF SYNCOPE

Most of my observations with the group in which cerebral anoxemia is not a factor, have been in patients having the cerebral type of carotid sinus syncope, and in a few patients in whom syncope seemed to be psychogenic in origin. Such attacks may be precipitated by emotional upsets and are often related to menstruation and to the menopause. As I have previously pointed out, none of the drugs which act on the circulation will help in this group. In eight patients in whom the attacks were due to a sensitive carotid sinus mechanism, surgical

denervation of the sensitive sinus has abolished the attacks. Ammonium chloride may prove to be beneficial. Otherwise, the treatment depends upon correcting the contributory factors involved in each patient, and usually psychotherapy of some sort will be necessary.

Most of our studies of the group in which syncope was due to cardiac disturbance, have concerned the reflex asystole which results from increased vagal tone. Impulses from the carotid sinus most often cause the reflex asystole. However, the attacks may originate from many sensory areas. We have knowledge[4] that such attacks may be caused by lesions in the pleura, the esophagus, the eyeball, the pharynx, and the larynx. In such cases the attack can be precipitated at will by irritating the sensory area involved. In a patient whose fainting attacks were associated with eating, a diverticulum of the esophagus was found. We attached a small balloon to a stomach tube and passed it to the level of the diverticulum. By inflating the balloon we were able to reproduce the syncopal attack at will. This patient obtained relief with atropin and ephedrin in the same manner that patients with carotid sinus vagal syncope did. In all types of reflex asystole, the attack can be abolished by atropin, because it paralyzes vagal endings, and by the adrenergic drugs because they stimulate the ventricle and prevent asystole in spite of the development of A-V or S-A block.

Cardiac asystole and syncope may be due to intrinsic disease of the heart. You are all familiar with this syndrome under the name of Stokes-Adams attacks. In some instances the asystole is due to transient heart block and the patient may have a normal heart rate between attacks. This is most often seen in rheumatic carditis. The electrocardiogram will usually show some prolongation of the P—R interval, however, which will suggest the diagnosis. Stokes-Adams attacks are most often seen in patients having permanent complete heart block, the acute attacks being caused by a sudden decrease in the ventricular rate. Since Stokes-Adams attacks are due to intrinsic heart disease and changes in vagal tone are not concerned primarily in the mechanism, atropin is of no value. Adrenalin and ephedrin, because they stimulate the ventricle directly, will prevent the attacks. The cases in which these drugs have little beneficial effect are those with myocardiums too greatly diseased to respond.

There are of course many other types of syncope which are associated with intrinsic heart disease and which are probably precipitated by a sudden change in cardiac output. Syncope caused by myocardial infarction is probably such an example and we see it occasionally in paroxysmal arrhythmias. Faints may occur when the rhythm shifts, at which time there may be a temporary ventricular asystole and they may also occur when the ventricular rate is very rapid. Rarely, sudden congestive failure may cause syncope. Sudden pericardial tamponade, due to trauma and hemorrhage into the pericardium, likewise may lower the cardiac output sufficiently to cause syncope.

I have encountered two distinct types in which the syncope was due primarily to peripheral circulatory collapse. These types must be differentiated because the principles of treatment differ. (Table II.)

Because of the response to adrenalin we believe that the primary cause for hypotension in the first group is a reflex arteriolar dilatation. The depressor type of carotid sinus syncope is a classical example of this mechanism. Similar reactions may occur from stimulation of the pleura as Capps and others have shown. Weiss has reported a similar vascular phenomenon in a patient with a severe neurosis. Some of the reactions which occur before and during intravenous medication are of this nature and respond to adrenalin. True postural hypotension should also be classified in this group because the syncopal attacks which occur in this sundrome are relieved by adrenalin and prevented by ephedrine. True postural hypotension differs in several important respects from orthostatic syncope occurring spontaneously or induced by sodium nitrite, as I shall demonstrate in a few moments.

The second type of circulatory collapse is that which I have called orthostatic syncope and this reaction seems identical to that induced by sodium nitrite. Syncopal attacks due to this mechanism are very common and occur most often in debilitated or elderly patients who stand up too soon after a severe illness. Syncope which develops in individuals who sit or stand in one position for long periods of time is probably of this type. We see such examples in soldiers standing at attention, and people watching parades, surgical operations, etc., while standing. The syncope of heat exhaustion, where excess blood is pooled in the skin is probably of a similar nature. Peripheral circulatory failure due to venous pooling, being due either to diminished venous tone or excessive hydrostatic pressure resulting from the upright position, is not relieved by adrenergic drugs because these drugs act primarily on arterioles and not on veins. Consequently, there is no specific antidote in the form of a drug. My patients who have developed this syndrome acutely have all subsequently recovered and the prognosis for recovery is good in this group. The well known method of having convalescent patients get up gradually over a period of days is an excellent form of vascular exercise and is the most im-

portant principle of treatment in this group. Patients may also be taught to shift their weight from one foot to the other and to move about while standing, and thereby improve venous return.

Since I have separated true postural hypotension from this more common type of hypotension related to the upright position, it may be well to stress the ways in which they differ. (Fig. 1.) Postural hypotension is usually associated with organic neurologic disease, especially tabes and combined system disease, and spontaneous recovery is rare. In postural hypotension, the increase in pulse rate is slight as compared to the fall in blood pressure which occurs when the patient stands up the administration of adrenergic drugs will prevent the occurrence of syncopal symptoms although they will not completely counteract the fall in blood pressure. In orthostatic syncope, on the other hand, the standing position induces a fall in blood pressure which is accompanied by a marked increase in pulse rate; the adrenergic drugs will not counteract this reaction, in fact they generally accentuate the symptoms. Fortunately, this latter type of syncope often clears up spontaneously or with removal of contributory causes.

Syncope due to peripheral circulatory collapse naturally may be confused with various types of medical and surgical shock. Clinically, syncope of this nature and shock differ chiefly in the rapidity of onset and recovery. So-called primary shock may occur suddenly and the circulatory mechanism is probably similar in nature to that occurring in hypotensive types of syncope. The common form of surgical or medical shock (so-called secondary shock) when not due to severe hemorrhage, is gradual in onset and recovery takes place slowly or not at all, unless proper therapy can be instituted. The chief difference between syncope and ordinary shock is that in syncope there is no change in the total blood volume. Rather there is an excess pooling of blood in certain areas and a decrease in effective or arterial blood volume. The pooled blood can be quickly mobilized and returned to the heart by altering hydrostatic pressure (i. e. placing patient in the recumbent position), or by adrenergic drugs, depending upon its location. In most types of shock, on the other hand, the blood pressure falls because of an actual decrease in total blood volume due either to hemorrhage or to leakage through the capillaries. Consequently, the only way to increase effectively the arterial blood volume is to increase the total volume by direct addition of fluids or blood. In severe shock, therefore, the important therapeutic principle is to increase the total blood volume rather than to shift blood from one bed to another.

So far, I have stressed the mechanism and specific treatment of those patients in whom the cause of fainting is understood. In many patients, we do not have sufficient information to determine the mechanism or cause. The immediate treatment of such attacks is, of course, well known to you all. If the blood pressure is low or the heart rate slow, adrenalin would be indicated if, after placing the patient's head down and feet up, recovery does not take place. Such forms of counter-irritation as fanning the patient with cold air, wet packs to the head, and smelling salts will often bring him out of his attack and is a form of therapy expected by most families, whether or not it actually helps the patient.

The successful management of patients suffering from repeated attacks of syncope of indefinite etiology depends upon one's success in ferreting out significant contributory causes from the history and correcting them. The patients will soon recognize warning symptoms and learn to sit or lie down before actual fainting occurs.

SUMMARY

The mechanism and specific treatment of fainting attacks of varying etiology are summarized.

Syncope not due to general circulatory changes must be treated symptomatically unless the cause can be found and removed.

Syncope due primarily to cardiac disturbance may be treated with atropin or ephedrin if reflex, by ephedrin if due to heart block, and by treating the cardiac disturbance responsible in other types.

Syncope due to peripheral circulatory collapse may be treated with adrenergic drugs if the collapse results from arteriolar dilatation or by altering hydrostatic pressure and improving venous return if due to venous pooling.

Treatment directed toward correction of precipitating and predisposing factors is necessary in all types of syncope.

Syncope or shock due to actual loss of fluid from the vascular system is treated by replacing the fluid and correcting the cause.

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A dermoid cyst was removed from behind and slightly above the bladder. It had cast a shadow on the X-ray plate, and was thereby very nearly mistaken for a vesical calculus.—William S. Ehrich, Evansville, Indiana.

End Results Following Common Duct Obstruction

FRED M. DOUGLASS, M.D.

FOUR problems present themselves in reviewing the end results in this series of 209 cases of common duct obstruction. These are the problems:

First: Removing obstruction within the ducts.

Second: Treating and managing infection within the biliary tract and its surroundings.

Third: Establishing the free drainage of bile into the intestinal tract.

Fourth: Preventing a recurrence of the original disease.

Depending entirely upon the individual case, operative measures are undertaken with the hope of achieving one or more—and sometimes all—of these objectives.

Addressing this section in 1932, I gave a detailed report on the use of radio-opaque oil in 15 cases requiring a minute study of the common duct and biliary system. My conclusions on that occasion were that early operation in biliary disease is to be favored; that there should be a more general use of radio-opaque solutions in the study of biliary cases before removing the drains after operation; and that the facts thus collected should be examined most carefully. Using such procedure, it was argued, we should be able to reduce morbidity and lessen the 6 per cent of cases returning with a recurrence of symptoms.

In 1935—again speaking before this section—I reviewed the results in 116 cases of surgery for common duct obstruction and again I strongly argued the case for early operation in biliary disease—operation before the infection had extended to the duct system and had caused the formation of stones and obstruction.

The value of radio-opaque substance has been demonstrated to some extent in each of the cases studied here and in a few instances it has proved to be a valuable aid in the postoperative care of the patients concerned.

HISTORY

Cotte[1] in 1925 studied three cases of postoperative biliary fistula using lipiodol. In 1927, Mallet-Guy, Beaupére, and Armanet[2] warned of possible complications following lipiodol injections and reported nausea with severe abdominal cramps and colic. In the same year, Piccinino and Pazienza[3] reported the use of a gelo-barium solution in studying the biliary tract after cholecystostomy. Satisfactory films were reported in all the above studies.

In 1928, Caeiro[4] published his observations in two cases of postoperative biliary fistula, using lipiodol. His recommendations were for cholecystostomy under local anesthesia in the case of a very sick patient and X-ray investigation of the biliary system after injection of lipiodol. Caeiro's findings were followed in 1930 by the work of Ginsburg and Benjamin[5] in their published study of postoperative biliary fistula, using lipiodol.

Ginsburg and Benjamin advised the early injection of a biliary fistula for study under fluoroscopic control. It was they who observed the reversal of flow into the hepatic ducts in the presence of a common duct obstruction.

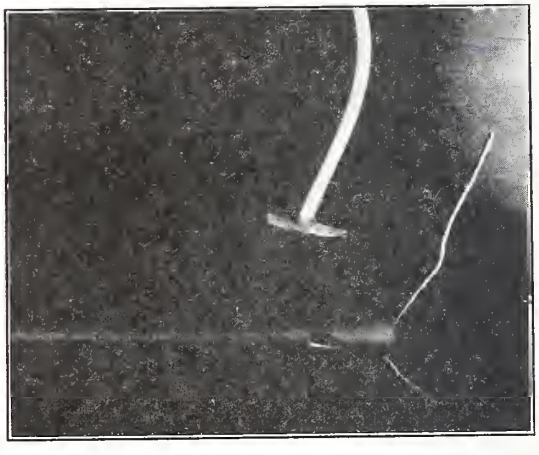


FIGURE 1—Shows our modification of McArthur tube, with T-tube prepared for insertion in eye of McArthur tube.

Gabriel[6] of London used lipiodol in the same

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The Author

● Dr. Douglass, Toledo, Ohio, is a graduate of Toledo University Medical Department, 1911; fellow, American Association of Obstetricians, Gynecologists and Abdominal Surgeons; American College of Surgeons; International College of Surgeons; director general of surgery, St. Vincents Hospital; attending surgeon, Toledo, Flower and Mercy Hospitals, Toledo; consulting surgeon, Mercy Hospital, Monroe, Michigan.

year to determine the patency of the common duct. Frazier and Glaser[8] brought out campiodol (iodized rape-seed oil) for use in the visualization of the advantages of campiodol for general use in roentgenological study.

Brominol is another compound used for the purpose. It is a brominized olive oil with the virtue of not irritating tissue.

Overholt[9] reviewed the literature in 1930. He presented a complete study of 11 cases and

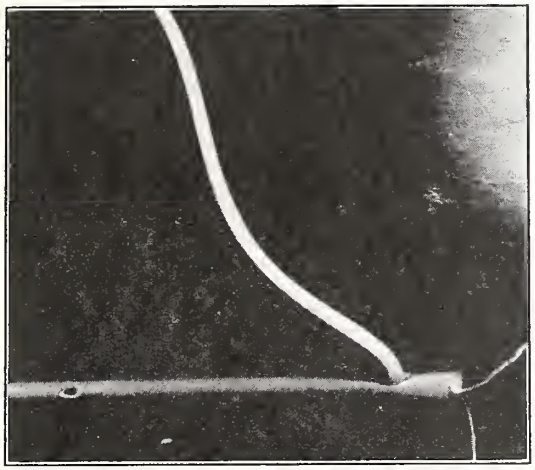


FIGURE 2—Shows modified T-tube in place through eyelet of McArthur tube, ready for insertion into duct.

gave all the detail of his observations under fluoroscopic control. Cotte[12] called attention to the value of the radio-opaque technique in studying the biliary tree before removing the T-tube.

The media used and technique employed have been described minutely in previous publications —Douglass[13] and Hufford[14].

We still prefer to use brominol, permitting 20 cc. to flow by gravity through the tube under fluoroscopic control. This procedure as a rule is followed on the tenth or twelfth day after operation.

REMOVING OBSTRUCTIONS

First, we must choose the operation necessary for the removal of the obstruction in the ducts and the correction of the pathology existing.

A careful history and an examination supplemented with complete laboratory findings are most necessary in establishing a diagnosis and evaluating the patient's operability. Every effort is made to place the patient in the best possible physical condition to meet the ordeal of surgery. Another essential procedure is the giving of fluids in large quantities—both by mouth and subcutaneously.

Glucose is given in large doses by vein and by mouth. For the ill and jaundiced patient, blood transfusions are given both before and after the operation. Bile is given by mouth along with Vitamin K[16], [17]. Stewart[19] recently demonstrated the striking frequency with which the plasma prothrombin is reduced in obstructive jaundice.

Bleeding is always an important consideration. Linking with the routine procedures observed throughout this series, we follow the policy of frequent transfusions to replace blood losses.

The incidence of hemorrhage has been kept low in this entire series of 209 cases by the giving of bile by rectum or through a nasal tube and by an early clamping of the T-tube to force the flow into the intestinal tract. The record is two deaths and two other bleeding cases which were controlled by transfusions and went on to recovery.

With the patient prepared and with an adequate exposure of the gall bladder and ducts, the requirements of pathology are met. The many abnormalities of the cystic duct and artery and irregularities in the location of the hepatic ducts



Case II—Mrs. M. W.—4-37:

Brominol injection through T drainage tube in common duct. Well outlined common duct which shows only slight dilatation and hepatic radicles with many small hepatic ducts visualized. Very little evidence of dilatation or blunting. Patency of common duct demonstrated. Opaque medium seen in the small bowel.

Note: This appears to be practically a normal biliary tree.

and arteries are considerations always to be kept in mind. Injuries will not occur if the surgeon pauses to verify his identification of the duct or artery in view.

The dilated common duct should be opened and its patency established. In this series, 22 dilated common ducts were opened where stones were

not palpable. In 14 of these cases, gravel or stones were removed.

THE CARE OF INFECTION

Long drainage of the common duct in all cases of severe hepatitis will increase the percentage of cures and lower the morbidity rate.

Among patients with a long history, it has been established that dilatation of the liver radicals had occurred and that the dilatation gradually diminished after drainage had been established. One-third of the cases in this series had symptoms continuing over a ten-year period. A reduction of dilatation was obtained in Case V after suitable drainage.

To compare the percentage cured after common duct drainage and the percentage cured



Case III—Miss M. L.—4-39:
Brominol injection through tube in reconstructed common duct shows the inlying catheter in the common duct with opaque medium in the duodenum and scattered through the small bowel.

after cholecystectomy without drainage is to invite the following conclusion:

The patients who returned to us after cholecystectomy without drainage and who complained of conditions we used to call by such names as "residual hepatitis", "chronic pancreatitis" and "spastic bowel" were, in fact, suffering from an overlooked stone or a chronically infected liver whose ducts should have been drained but were not.

ESTABLISHING FREE FLOW OF BILE INTO THE BOWEL

This is important. The patency of the ampula of Vater must be established. If gravel or thick bile are present in the duct, there should be resort to a saline irrigation of the hepatic and common ducts for their elimination. (Lahey[20]).

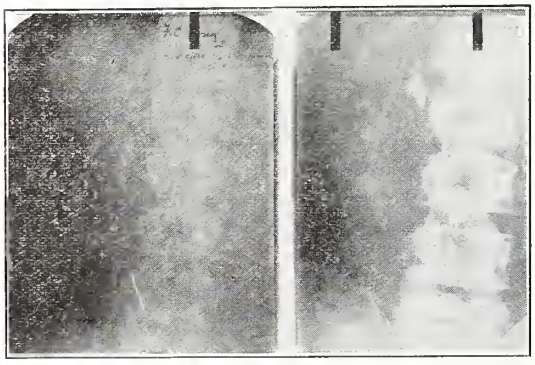
The giving of glucose through the T-tube is good practice if a satisfactory closure of the duct around the tube has been obtained. This method is helpful in washing small particles of gravel into the duodenum.

Cases of inflammatory conditions or injuries can best be repaired over a Douglass[13] modification of a McArthur drain to deliver the bile into



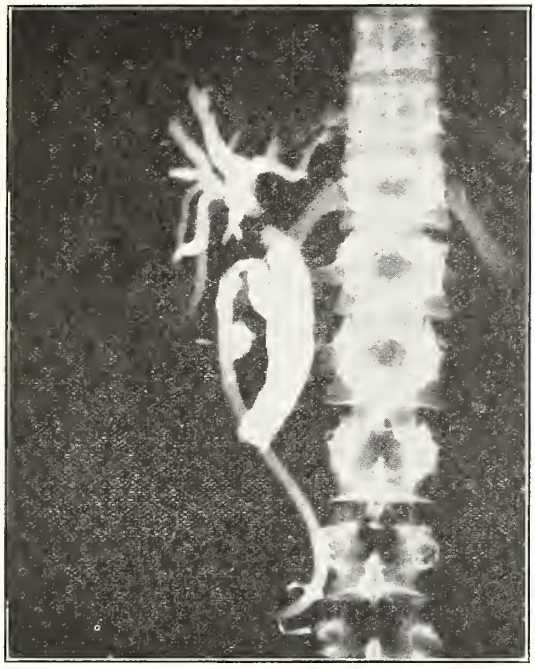
Case IV—Mr. F. L.—11-38:
Brominol injections through tube in common duct shows the common duct well outlined and markedly dilated. A small amount of opaque medium is seen in the region of the liver radicles. No opaque medium is seen in the small bowel. There is an irregular area of lessened density seen at the lower end of the common duct which is suggestive of stone. This was overlooked on first examination.

the duodenum, or there is the method of T. E. Jones[15] who reported using a T-tube and later permitting it to pass by the bowel. One should proceed with the anastomosis at once and without trying to locate the duodenal end of the common duct. In our experience we have found only small fibrous bands remaining. Valuable time



Case IV—Mr. F. L.—12-38:
Film three minutes after injection of brominol through tube in common duct shows incompletely outlined common duct with opaque medium in the small bowel. This examination made subsequent to re-operation. Stone in common duct removed. Film ten minutes after injection of brominol shows most of the opaque medium having passed into the small bowel with a small amount remaining in the common duct.

can be saved by completing the anastomosis over a tube. Each inflammatory obstruction presents a peculiar problem all its own, but the guiding principle to be kept constantly in mind is the



Case V—Mrs. M. A.—8-34:

Brominol injection through T drainage tube of the common duct shows a well outlined common duct which is greatly dilated and fairly well outlined hepatic ducts which are dilated, clubbed and blunted. Smaller hepatic ducts not visualized. No evidence of opaque medium seen in the small bowel.



Case V—Mrs. M. A.—1-35:

The brominol injection through T drainage tube in common duct shows a fairly well outlined common duct which still appears somewhat dilated with hepatic radicles fairly well outlined appearing slightly less dilated than on previous examination. No evidence of free opaque medium in the small bowel.

permanent and rapid re-establishment of the bile flow into the bowel.

PREVENTING RECURRENCE

We believe the problem of preventing recurrence of the original disease is best approached by a careful study of the biliary tree with radio-opaque media. The rate of the bile flow into the bowel, the dilatation of the liver radicals, and the comfort of the patient with the common duct filled are factors to be observed. Caution should be exercised to keep the drain in place until all symptoms have been reduced to a minimum. Such patients may go about their work with the tube clamped and they do not object to re-examination under the fluoroscope when additional information regarding their symptoms is being collected.

In the last 93 cases studied with opaque media, 22 had previous gallbladder surgery. Eleven had cholecystostomy; eight had cholecystectomy, and six had a previous choledochotomy.

Stones were present in all these re-operative cases excepting two which presented during operation a common duct distorted from adhesions. Without jaundice, and after releasing the adhesions and draining the common duct (Case VII) all symptoms subsided. No stones were present at the second operation in this group. The common duct was anastomosed to the duodenum over a modified catheter (McArthur-Douglass) (Case III) and the results were satisfactory in each case.

COMMENT

A comparative study shows that infection plays a very important part in the case of the patient from a recurrence of symptoms.

Adequate drainage can be substantiated by a comparative study of the biliary tree together with the flow of dye into the bowel.

Through the use of Vitamin K in association with the prothrombin estimations and by a more careful study, a safer control of the patient and complications is laid in the hands of every surgeon.

It seems to remain true, however, that prothrombin recovery becomes less as the severity of liver damage increases.

In reviewing 2,100 gallbladder cases, we find 24 cases of acute gallbladder disease in patients under 20 years of age. All are free of post-operative symptoms. These cases were submitted to operation before infection had involved the liver to any great extent.

You are invited to contrast this picture with that of the patients with symptoms of biliary infection ranging beyond a ten-year period. The older cases require long drainage. The dilated common duct must be thoroughly drained to

obtain a maximum end result. With only a few exceptions, it is this older group which accounts for the residual complications. The cases with slight dilatation of the ducts or no dilatation at all are free of postoperative symptoms.

In the presence of obstruction from accidental damage to the ducts or of adhesions around the ducts, the re-establishment of the bile flow into the bowel is imperative.

Radio-opaque oil was used in 93 patients, of whom 81 were females and 12 males. The youngest patient was 19; the oldest was 79; and the average age was 51.

Pain was the most constant symptom, occurring in 98 per cent of the cases. Nausea and vomiting were present in 95 per cent of the cases and chills occurred in 15 per cent.

The duration of symptoms ranged between two months and 20 years and the average was seven years.

There were nine deaths. Four were from bronchopneumonia; three were from cardiac causes, and hemorrhage and peritonitis accounted for one each.

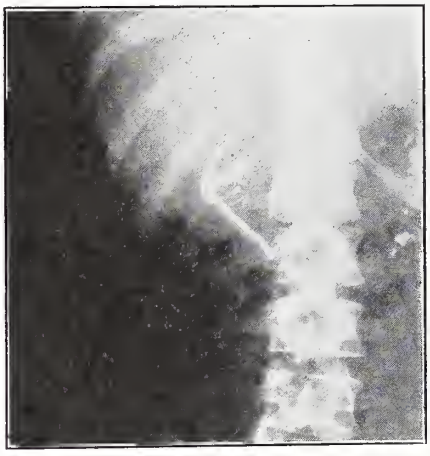
A history of jaundice was obtainable in 60 per cent of the cases; 20 per cent had a positive



Case VI—Mrs. A. K.—9-34:
Brominol injection through tube in reconstructed common duct shows the inlying catheter and fairly well outlined hepatic radicles which show very little dilatation and no particular blunting. The opaque medium is seen scattered through the small bowel.
Note: Subsequent film four months later shows the inlying catheter to have passed.

culture from the ducts; 60 per cent had no growth. There was no statement in 20 per cent of the cases.

Of the 84 surviving cases, two had recurring symptoms, were re-operated, and had stones removed from the common ducts. In two other cases the tubes were not properly cared for and accidentally were removed early—one before a study of the ducts could be made. In the second (case VIII) an X-ray examination showed a delay in the passage of the dye into the duodenum. This case needed a long drainage. Symptoms persisted after the premature removal of the tube. Within two months the patient had consented to replacement of the common duct drain. Drainage then was continued for three months and the symptoms gradually subsided. After being clamped for 10 days without discomfort, the tube was removed and the patient subsequently remained free of symptoms.



Case VII—Miss M. R.—12-34:
Brominol injection through common duct drainage tube shows a fairly well outlined common duct and incompletely outlined hepatic radicles which appear slightly dilated. The common duct is patent with opaque medium seen in the small bowel.

The time of preparation may be shortened and the operative risk reduced by transfusions, by the administration of bile salts with Vitamin K (cholic acid), and by the maintenance of water balance as advocated by Coller[21,22].

Postoperatively, the same procedures should be continued until the liver function has been restored and jaundice has subsided.

CONCLUSIONS

1. A review of 209 cases of common duct obstruction has been reported.

2. In 93 cases, radio-opaque dye had been used in the study of the biliary tree.

3. Satisfactory drainage must be provided when infection of the liver and the ducts has been established.

4. The diagnosis of an overlooked stone or an inflammatory obstruction may be made early in the postoperative period by the use of radio-opaque media.

5. The continued use of radio-opaque oil has been satisfactory.



Case VIII—Mrs. I. B.—4-37:

Brominol injection through T-tube in common duct shows a well outlined and markedly dilated common duct. The hepatic radicles are fairly well visualized and show definite blunting and clubbing. The duct of Wirsung is visualized for a short distance. The common duct is patent with considerable medium distributed in the small bowel.



Case VIII—Mrs. I. B.—5-37:

Re-examination by brominol injection through T-tube in common duct shows very little change in the size of the common duct or hepatic radicles. The duct of Wirsung is not visualized at this time. The common duct is definitely patent with a large amount of dye seen distributed in the small bowel.

6. Early operation in biliary disease will increase the percentage of cures.

421 Michigan St.

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Climate in Tuberculosis Treatment

There are various conceptions as to what constitutes an ideal climate for the treatment of tuberculosis, but several authorities agree that certain climates are beneficial only to the extent that they permit patients to spend a maximum number of hours comfortably out of doors. A regimen of regulated rest and exercise, proper food and open-air life is considered to be the fundamental essential in the treatment of tuberculosis, and the part played by climate is believed to be subservient to the other more important considerations.—Moriyama, I. M. and Herrington, L. P., Amer. Rev. of Tuber., March, 1939.

Criticism may be a form of elevation for the critic, purchased cheaply at the expense of pain for the criticized.—Fetterman.

Vitamins in Ophthalmology and Otolaryngology

A Review of Recent Experimental and Clinical Observations

WILLIAM H. EVANS, M.D.

THE history of medicine contains many references to the definite relationship which exists between diet and certain diseases[1], but no practical working knowledge of the subject was available until about 1925. During the past 25 years thousands of experiments have been performed on animals in order to determine the effects of various nutritional deficiencies, and a great mass of data has accumulated to indicate that the administration of specific food factors, or vitamins, has a definite place in the effective treatment of a wide variety of diseases.

This new knowledge of nutrition has influenced the practice of ophthalmology and otolaryngology, and takes its place along with problems of allergy, or glandular dysfunction, of degenerative changes accompanying senility, and of acute and chronic infections, as of definite significance in the diagnosis and treatment of diseases of the eyes, ears, nose and throat.

The discovery of additional food factors has proceeded so rapidly that it is difficult for the practitioner to keep pace with the new knowledge, and to apply it intelligently. At present, the voluminous literature pertaining to vitamins and various diseases contains many apparent discrepancies and contradictions, which are likely to cause considerable confusion. There is sufficient evidence to indicate quite clearly the use of certain vitamins in the treatment of some diseases related to specific nutritional deficiencies. On the other hand, the clinical application of discoveries in the laboratory in other conditions is not clearly delineated, and more evidence is needed to place vitamin therapy, in these cases, on a sound clinical basis.

It has been proved so far, however, that the knowledge of nutritional deficiencies in laboratory animals is, to a large extent, applicable in man, and hence the experiments of today are bound to influence the therapy of tomorrow. For this reason, it seems worth while to review briefly some of the recent experimental work on nutritional deficiencies relating to diseases of the eyes, ears, nose and throat. No attempt has been made to offer a complete review of the modern literature, but merely to point to the work that seems particularly pertinent in this special field.

FAT-SOLUBLE VITAMINS

Vitamin A—Vitamin A[2] is an essential part of the biochemical machinery of all vertebrates. The pathologic changes resulting from a deficiency or complete lack of this nutritional factor are similar in man and experimental animals and fowls. Eggs, milk, and butter are the usual sources of vitamin A, but a considerable portion of the vitamin A value in the human diet is represented by carotene, or pro-vitamin A, in green and yellow vegetables. The outer leaves of head lettuce and the outer leaves of young cabbage have a much higher carotene content than the inner white leaves.[3] Other green and yellow vegetables and fruits with a high carotene content are peas, beans, green peppers, broccoli, bananas, yellow peaches and apricots.

Vitamin A is readily absorbed and is stored in the liver.[2] The absorption and utilization are affected by the quantity and the manner of administration, the influence of other substances, the degree of saturation of the body, and the general physiologic condition of the alimentary canal.

One of the changes first demonstrated as associated with vitamin A deficiency is poor dark adaptation or night blindness[2], although this occurs also in toxic amblyopia, retinitis pigmentosa and detachment of the retina.[4] A form of night blindness was known in the time of ancient Egypt which could be cured by a diet of liver. Many observers have shown the relation between poor light adaptation and vitamin A deficiencies, both in experimental animals and in man. Yudkin, Kriss and Smith[5] showed that the fat extracted from the retina is a very rich source of vitamin A and suggested that visual purple may bear a direct relationship to vitamin A.

This delay in dark adaptation, or in regeneration of the visual purple, has been utilized, by means of a biophotometer, as a clinical test for measuring vitamin A deficiency. Feldman[6] has stated that changes in adaptation may be observed (1) in patients with various eye diseases,

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The Author

● Dr. Evans, Youngstown, Ohio, is a graduate of University of Louisville, School of Medicine, 1921; member American Academy of Ophthalmology and Otolaryngology, American Laryngological, Rhinological and Otological Society; ophthalmologist and otolaryngologist to St. Elizabeth's Hospital, Youngstown.

such as choroditis, chorioretinitis, glaucoma and retinal detachment; (2) associated with diseases of the blood or blood vessels, such as arteriosclerosis, anemia and eosinophilia; and (3) in patients with avitaminosis A.

VITAMIN A DEFICIENCY

Jeans, Blanchard and Zentmire[7] and also Jeghers[8], using dark adaptation as a test, found vitamin A deficiency frequently in human beings and demonstrated that the condition was relieved by administration of cod liver oil. The findings of the latter investigator probably have greater clinical significance, since his experiments were carried on with a group of medical students as subjects, whereas Jeans and his coworkers were working with school children in the lower grades, in whom it probably would be more difficult to get accurate measurements.

Jeghers found that 35 per cent had low photometer readings and 12 per cent had clinical manifestations of deficiency of vitamin A. The chief manifestations in the order of frequency are night blindness, photophobia, dry skin, dry conjunctiva, blepharitis and follicular hyperkeratosis. He called attention to the obvious danger when a person deficient in vitamin A drives an automobile at night.

Wise and Schettler[9] have reported an increased efficiency of those doing color matching in industry, following tests by the biophotometer and the administration of carotene in oil.

Getz[10] and associates found an incidence of vitamin A deficiency of 6.5 per cent and 11 per cent in two control groups, by biophotometric tests, and regarded the doses advised by Jeans (3000 units daily in children) and by Jeghers (10,000 units daily in adults) to be grossly inadequate. They recommended doses up to 200,000 units daily. They also found that 53 per cent of tuberculosis patients tested were deficient in vitamin A, and that the deficiency paralleled the severity of the tuberculosis.

The eye symptoms produced by greater deficiencies or complete lack of vitamin A are xerophthalmia and keratomalacia. These conditions are rarely seen in the United States[4]. They may appear in epidemic form during famine or in persons receiving a deficient diet, for some other reason.

"The specific pathological change of vitamin A deficiency is found in many epithelial structures and may be epitomized as follows: atrophy of the epithelium concerned, reparative proliferation of basal cells, and differentiation of the new product into stratified keratinizing epithelium. The replacement epithelium, regardless of the previous function and structure of the region, is identical in all locations and comparable in all its layers with epidermis."[2]

In the rat, the order of response to vitamin A deficiency to keratinizing metaplasia is salivary glands, including the submaxillary, parotid and all accessory glands of the tongue, buccal cavity and pharynx;[2] the respiratory tract including the nares, maxillary sinuses, Jacobson's organ, trachea and bronchi[3]; the genito-urinary tract[4]; the eyes and peri-ocular glands, including the corneae and palpebral conjunctiva, the harderian, intra-orbital and extra-orbital lacrimal glands, and the meibomian glands.

The clinical and anatomic data of the findings in vitamin A deficiency are interesting, and the report by Sweet and K'Ang[11] is significant.

"In our autopsies we found that the lesions of the eye were the most frequent, occurring in 16 of 17 cases. They started in the form of keratinization of the cornea and conjunctiva with disappearance of mucous cells. The epithelium of the cornea was hyperplastic and thickened. The corneal stroma showed first edema and then necrosis. This was followed eventually by ulceration and secondary bacterial infection. The tunica propria of the cornea was thickened and infiltrated by lymphoid cells and leucocytes. Newly formed blood vessels grew from the limbus toward the center of the cornea. Perforation of the corneal ulcer was frequently found and in a few cases it led to panophthalmitis. When treatment was given before perforation took place, the ulceration sometimes healed, but there was always a permanent scar.

"Changes in the respiratory tract ranked next in frequency. Epithelia metaplasia was present in the larynx or trachea in 8 of our 17 cases. The changes consisted of atrophy and replacement of the original columnar ciliated epithelium by stratified squamous epithelium, which in some instances showed superficial keratinization. In more severe cases, the epithelial changes sometimes extended even to the smaller branches of the bronchi. Associated with these epithelial changes there was usually an infiltration of the subepithelial tissue by many lymphoid cells, mononuclear wandering cells and varying numbers of leukocytes. The inflammatory reaction was, as a rule, more marked around the mucous glands, some of which were dilated. The dilatation of these glands seems to have been due to obstruction of the ducts of the glands as a result of similar metaplastic changes of the ductal mucosa.

"There were no specimens from the nose and nasopharynx available for study. In the digestive tract, the esophagus was the only organ in which epithelial changes occurred. Of our 17 cases, definite keratinization of the esophageal mucosa was present in five. In some cases, the keratinization was so marked that the mucosa closely resembled hyperkeratotic epidermis. The epithelium of the ducts of the esophageal glands was hyperplastic, causing partial or almost complete obstruction. The submucosa usually was infiltrated by a moderate number of lymphoid cells and a few mononuclear wandering cells."

In a series of experiments on several hundred puppies, Frohring[12] found that the absence of Vitamin A in the diet usually resulted in some effect on the eyes, but noted that complete absence of vitamin A caused different results from those produced by an insufficient curative dose after

the animal's stores of vitamin A had been depleted. He reported xerophthalmia, especially in long-haired breeds, indicating the importance of irritation, as well as vitamin deficiency in the causation of this condition; corneal opacities; and also a divergent strabismus in a large number of the animals. He noted that infections of the eyes developed particularly in those animals that received insufficient curative doses after depletion. This latter observation is interesting, from the standpoint of its possible clinical significance.

In an experimental study, Cody[13] found that a diet deficient in vitamin A produced anosmia, nasal discharge, aphonia and impaired hearing. At necropsy abscess of the salivary glands and middle ears was common. The dysphagia following the abscesses of submaxillary and lingual glands is of prime importance in final nutritional failure.

The use of Vitamin A in preventing infections of the upper respiratory tract has been suggested, but Shibley and Spies[14] found that large doses had no effect on the incidence of common colds, but it apparently shortened the duration. The investigation of Lewis and Barenberg[15] revealed that the health of a group of infants receiving one-fourth of the amount of vitamin A present in the average diet was just as good as the health of a group of infants receiving from 17 to 34 times as many units of vitamin A.

The clinical implications are that in the practice of ophthalmology vitamin A is of probable value[16,17,18] in (1) cases of poor dark adaptation, (2) phlyctenular keratoconjunctivitis, (3) photophobia and low-grade conjunctivitis in women on a reducing diet, (4) corneal ulcers, and (5) chorioretinal disturbances.

In otolaryngology it may be used prophylactically to increase resistance to upper respiratory infections in children and therapeutically to improve the nutrition of the nasal and aural mucous membrances in acute and chronic infections.

Vitamin D—It is agreed that vitamin D has to do with the metabolism of calcium and phosphorus in the body.[19] In the practice of ophthalmology and otolaryngology the beneficial effects noted from its administration are of an indirect nature. Cataracts are known to develop in parathyroid tetany and there is a relation between metabolism of vitamin D and the parathyroid hormone. It is not known to what extent vitamin D is a factor in ocular physiology and pathology.[16] Laval[20] denies its value in the treatment of myopia. Blackberg and Knapp[21] and later Knapp[22] reported excellent results in the treatment of a small series of patients with keratoconus by massive doses of vitamin D in the form of viosterol and calcium.

Cody[13] concluded that a diet deficient in vitamin D had no effect on the nasal, aural and tracheal mucosa and that it produces no lesion in the osseous labyrinth in the rat that resembles otosclerosis in the human being.

Cod liver oil[23] applied locally is said to be of benefit in the treatment of tuberculosis of the pharynx and larynx.

WATER-SOLUBLE VITAMINS

Vitamin B—Vitamin B complex[16] plays an important role in the maintenance of health and normal growth. It is believed that there are at least seven factors necessary for animal existence in the B complex. At the present time, there are many controversies as to the effects of and needs for these separate factors. Vitamin B or B_1 (thiamin), known as the antineuritic factor, and riboflavin from the vitamin G or B_2 factor have been isolated and are available in pure form.

Vitamin B (thiamin) is necessary for the maintenance of a good appetite and normal muscular tone of the digestive tract.[24] It is also believed to be essential for optimal growth of infants and children and appears to be concerned in the metabolism of carbohydrates.

The function of the vitamin G (B_2) complex is not well understood, but it is believed to play a part in the chemical processes of all living cells. In experimental animals, a deficiency of vitamin G results in retarded growth, loss of hair and nutritional cataract. Substances contained in the vitamin B complex are known to be of essential importance for the protection of the nervous system.[25] It is generally recognized, too, that failure to assimilate these substances may be as important a factor in the production of neurologic symptoms as the failure to take an adequate amount.

There are numerous instances on record[18,26,27] that toxic amblyopia has been relieved by a diet high in vitamins with the addition of varying quantities of vitamin B complex, administered in the form of yeast. It is also suggested[18] that patients with retrobulbar neuritis, toxic amblyopia and optic neuritis, whether due to sinus disease, tobacco, alcohol or multiple scerosis, should receive large doses of vitamin B complex.

Koepcke[28] has advised the use of vitamin B in herpes zoster ophthalmicus.

In 1931, Day, Langston and O'Brien[29] reported that keratitis and cataracts developed in rats fed on a diet deficient in vitamin G (B_2) and later Langston, Day and Cosgrove[30] were able to produce the same condition in albino mice on a restricted diet deficient in vitamin G (B_2). The experiment was repeated by Yudkin[16] and the findings confirmed. Since then it has been shown that cataracts do not develop in rats on a diet deficient in vitamin G (B_2), if 60 to 90 micrograms of riboflavin are added to the diet weekly.

Gyorgy[31], on the other hand, believes that vitamin G complex contains a cataract-preventing

factor distinct from riboflavin. He reports that he has seen only two or three cases of cataract in many hundreds of rats deficient in riboflavin. He did find, however, low values of reduction against dichlorophenolindophenol, which is supposedly the first change in the metabolism of the eye lens which probably leads later to visible cataract.

A nasal syndrome has been identified with a deficiency of vitamin B_1. It is common in young women and characterized by post-nasal discharge with a normal anterior nasal mucous membrane. The posterior tips of the middle turbinated bones are smooth, moist, creamy white and slightly thickened. Cody[13] concludes that vitamin G has no effect on the ear, nose, or throat. Koepcke[28] advises vitamin B complex in sphenopalatine neuralgias. A possible relationship between "chronic progressive deafness" and deficiency of vitamin G (B_2)) has been suggested.[32] I have prescribed yeast to many patients complaining of tinnitus and loss of hearing of the higher tones, but am unable to report any marked improvement in most of them.

Vitamin C.—Vitamin C is specifically involved in the prevention of scurvy, but there is evidence of its value in other conditions.[33] Recent work suggests that a low intake of vitamin C may be one of the causes of lowering natural resistance. There is evidence also that in the course of certain infections there is need for greater quantities of vitamin C. How vitamin C is absorbed, assimilated, and utilized in specific infections is still unknown.

In the body it is concentrated in the suprarenal glands and a great deficiency of the vitamin is manifested by generalized hemorrhages[34], diseases of the bones and teeth, and lesions of the gingiva. The exact requirements for normal health are not known, but it is estimated that an adult requires from 30 to 60 milligrams daily.[33] The synthetic preparation of ascorbic acid may be administered intravenously or intramuscularly by dissolving it in sterile water and adding one-half its weight of sodium bicarbonate. This prevents the loss of potency and local reaction.

Among the richest sources of vitamin C are oranges, grapefruit, lemons, tangerines, green peppers, tomatoes, strawberries and raw cabbage.[35]

Bellows[36] found the quantity of vitamin C was greatly reduced or entirely absent in the lens and aqueous of cataractous eyes and that the deficiency preceded the development of the opacities. He also found that the concentration of vitamin C in the blood of patients with cataract is less than in normal persons.

Yudkin[16] states that relation of vitamin C to the formation of cataract is problematic. It appears highly probable that this substance has some essential function in the metabolism of the normal lens, and if this is so, any condition which would lead to its withdrawal might be expected to induce degenerative changes. However, cataract is not associated clinically with scurvy, nor is its occurrence recorded in experimental animals on a scorbutic diet.

The results of a recent investigation suggest that streptococci are less likely to be found in the tonsils when the vitamin C values of the blood are high and that, when present in such cases, they are seldom virulent.[37]

Myerson has stated that vitamin C deficiency is one of the possible factors in hemorrhage following tonsillectomy. Traube[39] reported a case of severe conjunctival bleeding that responded to vitamin C therapy and Yudkin[16] has seen beneficial results follow the use of vitamin C in hemorrhages of the choroid and retina but prefers lemon juice to the synthetic preparation or to any of the other citrus fruits.

Recently Ruskin[40] has advised the use of vitamin C in the treatment of myringitis bullosa hemorrhagica (grippe otitis). The administration of 3 cc. of 15 per cent calcium cevitamate intramuscularly each day was followed by a rapid alleviation of pain and other symptoms.

Abt and Farmer[33] have reported that vitamin C has an important role in the healing of surgical wounds. When a history of low vitamin C intake or a low plasma value is obtained it would seem logical to administer vitamin C before and after operation. Vitamin C also apparently accelerates bone healing in fractures and is needed, in increased quantities, in infections of surgical nature. These observations tend to substantiate the theory that large amounts of citrus fruit juices are indicated in the surgical practice of ophthalmology and otolaryngology.

SUMMARY AND CONCLUSIONS

From an incomplete review of the clinical and experimental literature, and from personal observations, one is forced to conclude that a knowledge of diet and nutrition is of vital interest and importance in the successful practice of ophthalmology and otolaryngology. We are indebted to the biochemists and physicians who have placed before us this additional knowledge to be applied in this special field.

The clinical indications are:

(1) A sensible diet prescribed according to the likes and dislikes and the age of the patient, and containing citrus fruits, leafy vegetables, milk, eggs, butter, and whole wheat bread, is desirable in maintaining an adequate mineral and vitamin reserve.

(2) In some normal individuals, in certain occupations and at certain seasons of the year, an increase in vitamin intake over and above that obtained in the diet is advisable.

(3) In certain diseases encountered by the oph-

thalmologist and otolaryngologist, in addition to a balanced diet, vitamin concentrates have a definite value in alleviation of symptoms.

(4) Some of the indications for vitamin therapy are as follows: (a) Vitamin A, administered in the form of cod liver oil, halibut oil, or carotene in oil, is used in the treatment of corneal inflammations and chorioretinal disturbances; in upper respiratory infections in children prophylactically; and in acute and chronic infections of the nasal and aural mucous membranes. (b) Vitamin D is administered in keratoconus by large doses of viosterol and calcium; and by the local application of cod liver oil in tuberculosus pharyngitis and laryngitis. (c) Vitamin B complex (including B and G), usually administered in the form of brewer's yeast, has been used in incipient cataract (in conjunction with vitamin C), optic neuritis, retrobulbar neuritis, toxic amblyopia, herpes zoster ophthalmicus, ophthalmic conditions secondary to focal infections (in combination with vitamin A), sphenopalatine neurosis, punctate corneal ulcers near the limbus (with vitamin A), Cody's nasal syndrome, and tinnitus and early loss of hearing. (d) Vitamin C, as ascorbic acid, or large quantities of citrus fruits, is used in incipient cataract (the juice of two lemons twice a day along with two teaspoons of brewer's yeast twice a day before meals), intra-ocular hemorrhage, hemorrhage following tonsillectomy, in acute infections of the ear, nose and throat, before and after surgical operations, and in myringitis bullosa hemorrhagica.

24 Wick Ave.

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Facts and Theories of Nasal Disease

RALPH J. FRACKELTON, M.D.

MODES of treatment in nasal disease had evolved almost entirely along the lines of clinical approval until recent years, when intensive scientific investigation descended upon the nose. Much experimental evidence has accumulated to show that certain time honored therapeutic procedures have been deleterious and we must prepare for their discard. This jilting of familiar treatments becomes less painful when it is shown by a study of nasal physiology and histo-pathology that equally effective measures, which are relatively harmless, are available.

The nose has come to be looked upon as an actively functioning organ in a constantly variable state. While warming, cleansing and moistening air of varying temperature, varying dust content and humidity, the nasal mucosa must maintain its own defense against infection and physical injury. The olfactory epithelium has regenerative powers, well known to you, for its damaged mucosa apparently is renewed in a week or so. To withstand extreme environmental changes the nose has a remarkable adaptive physiology through its unique neuro-vascular system. In health there is a cycle of congestion and retraction. The filling of the blood spaces and the increased activity of the secretory cells are followed by retraction or shrinking due to elimination. This cycle is timed to affect the nostrils alternately and thus prevent complete blockage.

PHYSIOLOGY OF THE NOSE

In order to appreciate the physiology of the nose, it seems reasonable to consider the automatically controlled and elaborately constructed vascular system. The blood carrying the raw materials for nourishment and defense, reaches the capillary wall, which acts as the semipermeable membrane between the blood vascular system and the intercellular spaces of the submucosa. The effective functioning of the nose depends upon the permeability of all of the cells in its structure. After the blood is brought to the nose the contents of the intercellular spaces are the first affected and the earliest evidence of inflammatory reaction involves these spaces. From a defensive standpoint the importance of these spaces is made obvious when we consider their contents.

The intercellular spaces contain amorphous ground substance, collagenous white fibers and elastic yellow fibers and serum. Among its cellular elements are fibroblasts, undifferentiated mesenchymal cells, wandering and resting cells, leucocytes, pigment cells and chromatophores. These intercellular materials are in a more or less continuous state of flux. The variations in the composition and activity of the intercellular spaces affect the fixed cells and in turn the space contents are affected by the metabolic products of the fixed cells which include epithelial cells, glandular cells, periosteum, bone and cartilage. Their walls act as individual semipermeable membranes subject to the laws of osmosis and diffusion between each cell and its surrounding medium. Separating the mucosa from the submucosa is the basement membrane, which I believe to be the semipermeable membrane of the intercellular space of the submucosa.

Through this membrane the serous portion of the mucous sheet must easily pass. From this serous secretion is built up the crowning defense of the nasal mucosa, the glacier-like sheet of mucus, propelled backward by the ciliary waves. Linton points out that, when the secretion increases at the beginning of a cold the mucin content drops and this affects the viscosity and allows virulent bacteria to penetrate the mucosa. Paralysis of the cilia is caused by a change in the hydrogen ion concentration and the carbon dioxide tension. From this observation (by Hilding) a valuable common requirement of preparations used in nasal therapy is isotonicity. At times we have been so much concerned about cleansing and opening the ostia of the sinuses that we have often sacrificed temporarily, at least, the defensive mechanism of the remaining mucosa.

While the cilia are being affected by the concentration of the hydrogen ion, the intercellular substances are also influenced by the acid-alkali equilibrium. As the metabolic changes occur in the upper respiratory tract the degree

The Author

Dr. Frackelton, Lakewood, Ohio, is a graduate of University of Michigan School of Medicine, 1918; member American Academy of Ophthalmology and Otolaryngology; Cleveland Otolaryngology Society; demonstrator in otolaryngology at Western Reserve University School of Medicine.

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of alkalinity in the tissue must necessarily vary greatly. Buhrmeister and Wenner state that "When chilling of the mucous membrane results in increased secretion, the salt content in the tissue increases, which changes the reaction and favors the entrance of microorganisms. With this increase in the mineral content resulting in a decreased hydrogen ion concentration, a decreased viscosity of the secretion and an increase in the permeability of the cells, the patient is certainly rendered more susceptible to secondary infection".

The loss of potassium and other salts, the maintenance of capillary tone in the presence of histamine, and leucocytic migrations are all affected by the acid base equilibrium. The amount of histamine in the tissues seems proportional to the degree of cell injury and its proportion in nasal polypi is greater than in normal mucosa (Buhrmeister and Wenner).

It has been shown that histamine is involved in the allergic phenomenon. The glary polyp is looked upon as belonging more predominately to the allergic type. An alkaline secretion calls forth eosinophiles, produces increased permeability, and permits serum albumen and amino-acids to appear, while an acid secretion follows polymorphonuclear infiltration and is present in sinusitis.

Hilding has found that during the common cold the nasal secretions actually became more alkaline but that during purulent stages there was a shift toward acidity. The depletion of the cells resulting from prolonged infection, causes a loss in liver glycogen. An insufficient supply of glycogen results in the imperfect combustion of the remaining fats and acidosis results. It is at this point that the administration of glucose by various routes is more successful in eliminating the acidosis than the administration of sodium bicarbonate.

To certain clinicians it seemed that shifts in the acid-base equilibrium revealed themselves in the color of the nasal septum. It was reasonable to expect that as the allergic nose with its disturbed protein functions presented a typical nasal reaction, there might be an acid-base nose with a color index to show how the carbohydrate metabolism was progressing.

A large amount of private correspondence among the clinicians gave encouragement to this theory. But, inasmuch as radical changes in diet have been known to benefit clinically in many diseases, and especially so, if endorsed with enthusiasm, the biochemists experimented to evaluate this dietary theory. The color of the septum was studied in demonstrable systemic vascular diseases but no stable relationship could be established. It was found that the color of the nasal septum is not a constant, whereas the pH of the body is one of the body constants. Excess acids and excess alkalies are promptly eliminated to maintain this relative uniformity. The relationship of the color of the septum to the acid-base equilibrium found little support in extensive biochemical study. The most encouraging experimental report I could find for the theory was by Bernheimer, who states "A few salts, drugs, hormones and vitamins have demonstrable effects on the vasomotor mechanism of the nose in normal persons and in patients with vasomotor disease. The effects demonstrated nasally were only transitory".

To further emphasize the instability of the vascular system of the septum, the findings of Undritz and Sassossow are interesting. They found that the application of cold to the abdominal skin of dogs and guinea pigs causes a decrease in the temperature of the nasal and pharyngeal mucosa. It is a reflex drop, varying from two to four degrees, before the temperature of the rest of the body has been lowered. Inasmuch as temperature changes in remote parts of the body cause vascular effects in the nose, the color of the nasal septum is necessarily variable. Whereas there may be clinical cases justifying certain physicians to continue an interest in the color index, we have little scientific reason to believe that by dietary manipulations can we induce the red and pale septums to resolve themselves into a normally pink shade.

PREPARATIONS USED IN GENERAL TREATMENT

It is interesting to consider some of the preparations used in the general treatment of nasal disease from the standpoint of cell permeability and the intercellular medium. Small daily injections of insulin to affect glucose metabolism, small doses of sodium bicarbonate and Lugol's iodine, oil injections of iodoform, injections of cortical substances of the adrenal, administration of ephedrine, small doses of thyroid extract, and more recently, injections of ascorbutic salt of calcium (calcium cevitamate). The intercellular spaces furnish the arena for the performances of sulfanilamide and similar derivatives.

The recent use of estrogenic substance in atrophic rhinitis has proved clinically valuable and was introduced on theoretical grounds. Cranial skiagrams offered evidence that in half of the males and in more than three-fourths of the females hypopituitarism and hypoplastic sphenoidal sinuses were present in atrophic rhinitis cases. The incidence among females was greater than males. The facial growth failure is known to be produced by pituitary disability in the ontogenetic growth of the patient. It is felt this unfavorably influences the development of the conchal mucosa, while estrogenic substances produce a specific response away from

this pathological process. As one looks at sections of the thickened basement membrane in atrophic rhinitis it is difficult to realize the clinical fact that the estrogenetic substances can partially restore the permeability of the atrophic mucosa and produce a marked relief from symptoms.

The penetration of the olfactory epithelium by the filtrable virus of poliomyelitis is a unique example of extension of infection along specialized tissue. In monkeys, this seems to be the only channel of entry but in man the intestinal tract may provide an additional portal. This extremely small virus is thought to invade the delicate olfactory hairs, surmounting the exposed bullous ends of the olfactory nerves to make its intracranial entry. Thence along the amyelinated olfactory nerves to the mitral cells of the olfactory bulb, the virus makes its intracranial entry. Weak solutions of zinc sulphate and picric acid have been used to prevent the disease in epidemics by temporarily coagulating the superficial cells of the olfactory epithelium. Technical difficulties in the use of the epithelial coagulants, zinc sulphate and picric acid solutions, have resulted in partial failure. It is probable that in the future the dropper instillation into the nose of weak preparations of picric acid, while the head is lowered for three minutes in extension, will be given further trial. If so, the temporary loss of smell the anosmia produced will be used as a criterion of the effectiveness of prophylaxis. The prevention of epithelial penetration by filterable virus without cell damage is still something to be desired but not as yet fully attained.

The ability of this virus to affect so exclusively the nervous elements of the nasal mucosa, brings an interesting speculation as to whether infectious toxins in a sphenoidal sinus may affect the optic nerve, when a dehiscence in the bone provides close apposition to the nerve. In such a case one would not necessarily expect to find a suppurating process in the sphenoid.

Markbreiter found that 70 per cent of a series of sphenoethmoiditis showed defects in the field of vision, although they made no complaint of ocular symptoms. Moreover any infection may conceivably favor a vitamin A deficiency and thus indirectly affect ocular function. For relief of affections of the optic nerve, such as optic neuritis, even successful nasal surgery cannot be taken as a criterion that the sinus disease was the cause of the ocular disease. Surgery may supply a primary ischemia, secondary congestion, and absorption, and the possible rise of temperature from auto-vaccination. It may be these effects and not sinus drainage of ventilation whereby the favorable outcome is produced.

Cases occurring about four weeks after influenza may be more logically considered to be of nasal origin and Sulzberger claims that 50 per cent of cases of optic neuritis after influenza showed X-ray evidence of sinus disease. No large percentage of optic neuritis cases can be proved to be due to sinusitis but it is the viewpoint of Bajkay that if sinus surgery is to be expected to improve these cases the operation should be done during the first three days of the disease and if a later operation is to be employed there should be definite objective signs of sinus disease before operating.

CONCLUSION

The apparently unrelated subjects of this paper revolve about the subject of cell permeability in relation to the intercellular medium. The vascular system influences the intercellular materials which in turn alter the condition of the fixed cells. This accounts for successive manifestations when the nose is invaded by infection—often in the order of dryness, serous discharge with congestion, mucoid, mucopurulent and purulent secretion. Successful preventive measures will be first the avoidance of injury to the mucus sheet and its movement; second, the restoration to proper balance and activity of the materials of the intercellular spaces; and third, the supplying of metabolic needs to the fixed cells, associated with a restoration to neurovascular equilibrium. By local and general therapeutic measures involving medical and surgical procedures, dietary and physical agents, the province of the otolarngologist has widely expanded in nasal disease.

15701 Detroit Ave.

Social Aspects of Tuberculosis

The prevention of tuberculosis is not merely a public health problem but also a powerful social and economic factor which affects the economic structure of the entire nation.

"At a time when all values have tumbled and numerous assets have to be classified as frozen, the health and productivity of the people remain the outstanding and most tangible resources of a nation and it would be the shortsighted policy of the penny-wise and dollar-foolish to curtail preventive health measures for the sake of economy," says Dr. Karl Fischel of Saranac Lake.

The tuberculosis problem is closely linked with other momentous issues of the day, and the tuberculosis death rate of the future is, therefore, bound to be affected by the solution of other problems, be it unemployment, inflation, commodity prices or disarmament. (From an essay awarded the Leon Bernard Memorial prize for 1938 by the International Union Against Tuberculosis) Fischel, Karl, Bull. de l'Union contre Tuberc., 1939, 16.

Statistical Study of Alcoholic Psychoses

N. W. KAISER, M.D.

STATISTICAL records of the Ohio State Hospitals yield some rather interesting information relative to the alcoholic psychoses. From 1912 to 1936 inclusive, 78,161 patients were received at the seven Ohio State Hospitals for the civil insane as first admissions. Owing to the fact that the Lima Hospital was opened subsequent to 1912, it was not included in the survey. During this period, 5316, or 6.8 per cent of the total first admissions were alcoholics. Classified according to sex, we find that 10.2 per cent of all the male first admissions and 2.1 per cent of all the female first admissions were alcoholics. In the combined group of seven hospitals, as well as in the individual hospitals, there was a rather definite parallelism in the admission rate of the two sexes, although the frequency of male admissions was approximately five times that of females.

A yearly graphic chart shows that in those years or periods of years when male admissions increased, female admissions also increased and when there was a decline in the frequency of male admissions there was also a decline in the frequency of female admissions. As a combined group including both sexes, over a period of 25 years from 1912 to 1936, the highest peak in admissions was reached in 1917, the rate being 12.2 per cent.

The male admission rate for that year was 17.2 per cent and the female rate 4.5 per cent. From 1912 to 1917, the admission rate was the highest for any period of years. From 1917 to 1920, there was an abrupt decline. From 1920 to 1925, the admission rate was lowest for any period of years, being approximately 3 per cent. From 1925 to 1930, there was a gradual increase and from 1930 to 1936 there has not been any material increase or decline in admissions throughout the State as a whole; however several of the individual hospitals have shown an upward trend. The maximum male admission rate for any one hospital during the 25-year period was 27.8 per cent. This occurred in 1912. The minimum male admission rate was 0.4 per cent. This was in 1920. The maximum female admission rate for any one hospital was 11.4 per cent, occurring in the year 1913. In all of the seven hospitals, however, and on repeated occasions the female admission rate dropped to zero.

Statistical records relative to alcoholic readmissions in the Ohio State Hospitals are not available prior to 1920. From 1920 to 1936, there has been a definite upward trend in the frequency of readmissions, which parallels very largely the upward trend in first admissions.

The Author

● **Dr. Kaiser, Toledo, Ohio, is a graduate of University of Western Ontario, Medical School, 1919; assistant superintendent at Toledo State Hospital.**

AGE ON ADMISSION

A survey of the age of alcoholics on admission covering a period of the last seven years and involving 1339 consecutive admissions shows the following:

0.15 per cent were under 20 years of age.
8.4 per cent were between 20 and 30 years of age.
29.5 per cent were between 30 and 40 years of age.
35. per cent were between 40 and 50 years of age.
19.7 per cent were between 50 and 60 years of age.
6.1 per cent were between 60 and 70 years of age.
0.6 per cent were over 70 years of age.

The age at which alcoholics come to our State Hospitals is essentially the period of middle life and maturity, the highest point in any ten-year period being reached between the 40th and 50th years.

DEGREE OF EDUCATION

A survey of the degree of education in 1126 consecutively admitted alcoholics was made, classifying them into the groups of illiteracy, common school education, high school education, and college education. The degree of education in the alcoholics was then compared with the degree of education in 2694 manic depressives, 3554 dementia praecoxes, and 708 psychoneurotics. The findings in tabulated form are as follows:

Number	Psychoses	Illiterate	Common School	High School	College
1126	Alcoholic	12.1%	72%	9 %	3.3%
2694	Manic Depressive	5.8%	70%	17 %	5 %
3554	Dementia Praecox	2.7%	69%	19.1%	4.5%
708	Psycho-neurotic	3.4%	67%	23 %	5.5%

These findings show that there is a definitely higher degree of illiteracy in alcoholics than in the other three groups, while on the other hand,

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the high school and college educations in alcoholics occur less frequently than in the manics, praecoxes or the psychoncurotics. In the common school education, the alcoholic rate is very slightly higher than in the other three groups. These findings may be of some significance if we accept the viewpoint that there is primarily some personality deviation or something fundamentally inadequate in the mental make-up of the alcoholic. Such findings might be interpreted as evidence suggesting trends along that line. The fact that the onset of the dementia praecox and the manic depressive psychoses in many instances occurs during early life and interferes with high school and college education adds significance to these findings, because the alcoholic psychoses do not develop with any degree of frequency during that period of life in which a higher education is being acquired.

ENVIRONMENT

In an analysis of 18,550 patients admitted from urban centers, 1234 or 6.6 per cent were alcoholics. While in 4048 patients admitted from rural districts, 148 or 3.6 per cent were alcoholics, thus indicating that urban centers recruit relatively twice as many alcoholics as rural communities.

THE ALCOHOLIC PERSONALITY

Strecher and Chambers in their analysis of alcoholics have suggested that a large number are recruited from three personality types. First, the individual who attempts to escape reality, second the introvert, and third the potential psychoneurotic. In their book, "Alcohol—One Man's Meat", they state, quote, "We believe that abnormal drinking constitutes a psychoneurotic reaction type". They speak of abnormal drinking in the potential psychoneurotic as an alcoholic compromise. By the use of alcohol, the individual solves his problems and to some extent, at least, achieves the same results as the psychoneurotic without resorting to the more complicated psychic mechanisms involved in the development of a frank psychoneurotic reaction. Undoubtedly, quite a substantial segment of the general population is potentially psychoneurotic in its make-up. Assuming that some of these psychoneurotic reactions are avoided by accepting or resorting to the alcoholic compromise, it would seem that such a situation should be reflected in the frequency of the development of alcoholism as compared with that of psychoneurotic reactions.

With this in mind, the frequency of alcoholic admissions in seven Ohio State Hospitals from 1912 to 1936 was checked and compared with the frequency of psychoneurotic admissions over the same period. Of course, there are many factors involved which may have influenced the admission rates of these two groups, so much so that perhaps no definite conclusions can be drawn. However, the actual admission rates show that during the period of years from 1912 to 1917 when alcoholic admissions were highest, the psychoneurotic admissions were lowest. Then when the alcoholic admissions dropped quite rapidly from 1917 to 1920, the psychoneurotic admissions showed a slight increase. From 1920 to 1925 there was no material change in the alcoholic admissions rate. From 1925 to 1936, with the exception of some minor fluctuations, there has been a gradual increase in the admission rate of both groups.

Statistical records show that from 1912 to 1917, the rate of alcoholic admissions was approximately 11 per cent, while that of the psychoneuroses was approximately 1 per cent, or a total of 12 per cent for both groups. Considering the period from 1930 to 1936, the approximate rate for alcoholic admissions was 7 per cent, while that of the psychoneurotics was 4 per cent, or a total of 11 per cent for both. In the first instance, the alcoholic rate was unusually high and the psychoneurotic rate unusually low. In the second instance, the alcoholic rate had decreased, but the psychoneurotic rate had increased. However, the total or combined rates for the two different periods were approximately the same. It would seem that there is some evidence suggesting a more or less definite relationship in the frequency of the admissions of alcoholic and psychoneurotics. This relationship is more obvious in the females than in the males or than in the combined sex group.

In comparing the admissions of the alcoholics with that of the manic depressive and the dementia praecox groups, it will be noted that a different situation exists. Here there is more or less of a definite parallelism in the admission rate of all three groups during the entire 25 year period. When the alcoholic admissions were high, the praecox and manic groups were also high. When the alcoholic admission rate dropped abruptly, the praecox and manic admission rates also dropped abruptly, and when the alcoholic admissions followed a somewhat constant level during the latter part of the 25 year period, the praecox and manic admissions followed a similar course.

PROGNOSIS AND TREATMENT

An analysis of the admissions of 884 alcoholics to seven Ohio State Hospitals over a period of four years indicates that within one year following the date of admission, about 15 per cent die, 60 per cent are discharged and 25 per cent remain in the hospital. Further analysis, however, indicates that about 20 per cent of those discharged are eventually recommitted. At its best, the prognosis of the alcoholic is not very favorable. Considering those who remain permanently outside of hospitals, it would seem rather optimistic to assume all of these have discontinued their

abnormal drinking. Intimate and long continued contact with the alcoholic presents rather convincing evidence that there is something fundamentally lacking in his personality make-up. Inherent in his psychic structure is the compelling urge to escape reality. He apparently lacks the capacity or inclination to adjust himself to the more complex situations which he encounters. Like the medical student who believed that the ego ideal was something which was soluble in alcohol so the alcoholic apparently believes that alcohol can be used as a solvent for his problems and conflicts. Of all the available reality escaping devices, abnormal drinking is one of the simplest. Certainly it is much less complicated than the mechanisms involved in the psychoneuroses or other psychogenic psychoses.

It would seem reasonable in some instances at least, to assume that alcoholism is an effective compromise and provides a substitute for what might otherwise develop into actual psychoneurotic situations. Which of the two conditions is the more desirable is, however, largely a matter of personal preference and opinion. Of course, in this discussion it is understood that reference is made only to the essential alcoholic and not to the excessive drinking which may be encountered in the incipient paretic, the hypomanic, the psychopathic personality, the mental defective, or allied conditions.

The treatment of the alcoholic obviously is a difficult and complicated problem. The methods of approach are as numerous and complex as are the factors which impel men to drink. One thing however is certain, that until the cause of abnormal drinking can be determined, there is not much hope for any effective therapy. In the alcoholic, we are dealing with an individual who has been abnormal even before he commenced to drink. He is the psychological brother of the neurotic and the psychopath. Successful treatment involves a program which will do much more than simply deprive him of his liquor.

DISCUSSION

Nicholas Michael, M.D., Columbus—The statistical study given by Dr. Kaiser is very interesting and gives an idea of the problem which has not as yet been solved.

It is true that our medical treatment of acute reactions has been greatly improved and that some of our old ideas about treating these conditions have been discarded, but once we get them over the acute or chronic intoxicating effects, we still have the psychological factors. The situation, the conflicts that have caused the individual to resort to alcohol are still present. Psychotherapy and psychoanalytical study are of value when used only with isolation. I strongly advise isolation in a private sanitarium or State Hospital for a period of months. This will enable the individual, with the help of the psychiatrist, to solve some of his own problems and show him that he can get along just as well if not better, without the use of alcohol. Even this fails in many cases. It is not unusual to see an alcoholic come back time and time again for a period of isolation within a few days or months. It seems the same situations, the same conflicts arise to disturb the mind of the patient and start him again into using alcohol. Their determined promises to abstain are easily broken.

Alcohol alone does not cause the psychosis. Most individuals know their limitations and are able to stop after a few drinks. In most instances, the alcoholic is an inadequate, unstable individual who has difficulty in meeting certain situations in life. He seeks to release some of his inhibitions and seeks a temporary flight from reality. Some individuals are more susceptible than others. Severe head trauma will lower the resistance of the individual to alcohol. Alcohol may complicate a schizoid, manic depressive or even a paretic type of a psychosis.

Bromide Intoxication Involving Brain and Skin

While toxic manifestations of several types and degrees involving brain and skin have been recognized by physicians for many years, yet many cases of brominism, especially those having nervous or mental manifestations essentially, go unrecognized.

The bromides frequently may produce both cerebral and dermal pathologic exhibitions, yet more than half have the former alone.

The toxic threshold for the individual presents wide variations. A minimum figure of from 100 to 150 mgm. of bromine in the blood to produce toxic manifestations usually is given. Uncommonly less than 100 mgm. can produce definite symptoms, and in one of the writer's cases only 45 mgm. were required.

No one clinical sign will permit of a diagnosis. The entire syndrome should be considered, and especially is the amount of bromide found in the blood important.

A blood replacement with about 25 per cent reduction of chlorides and the substitution of bromides suggests a possible toxic state, and 40 per cent is a definite danger signal.

The treatment consists of withdrawing the bromides either totally or quite rapidly, rest, elimination by several means, the introduction into the body of goodly quantities of sodium chloride and hydrotherapy.

The prognosis for the bromide intoxication per se should be excellent. The patient with severe brominism many anticipate an improvement within two or three weeks, and a restoration to follow about two to four months of treatment.

The bromides are eliminated slowly, and from two to six months may be required to remove all excess quantities from the body fluids and tissues.—A. L. Skoog, M.D., Kansas City, Mo.; Jr. Mo. S. Med. A., Vol. 36, No. 8, August, 1939.

Exploded Theories of Ovulation

The Various Notions on When Ovulation Occurs and Their Bases

RICHARD D. BRYANT, M.D.

MEDICAL philosophers, since the very beginning of recorded history, have been interested in the reproduction functions and have tried to explain the parts played by the male and female, respectively, in the creation of a new being. But the contribution of the female has always been a matter of conjecture because her essential reproductive organs are hidden deep within her body. However, absence of visible proof has not diminished the tendency to theorize.

Some of the ancient beliefs were surprisingly accurate, although based solely on clinical observation, deduction and a large proportion of guesswork. For instance Sushruta, a Hindu physician and surgeon in about 800 B.C., two centuries before the birth of Buddha, set down in Sanskrit the medical knowledge which had come to him by word of mouth through untold centuries. He believed[1] that the female reproductive element was spontaneously elaborated just before the menstrual period, and was lost with the flow if conception did not occur; he also believed that coitus could induce what we call "ovulation". The belief in spontaneous "ovulation" was so fixed that moral and religious cognizance was taken of it, for a Hindu writer of a later date wrote:[2] "If an unmarried girl discharges the menstrual fluid at her father's house the father incurs a guilt similar to that of destroying a fetus, and the daughter becomes Brisalee, or degraded in rank". This belief may account for the very tender age of Hindu brides.

The early Greek writers had various theories about the time when the female element was produced. Pythagoras in the 7th century B.C. thought that a vapor descended from the brain during coitus, and that conception occurred through the union of the male and female vapors. Hippocrates (460-370 B.C.) made an amazing observation when he stated:[3] "On one day in each month it can solidify and master the advancing parts, and that only if it happen that parts are emitted from both parents together in one place". He believed that the elements fire and water were provided by both parents, and that when the fire solidified the water, a fetus was formed. The statement that this can occur on only one day in a month is staggeringly modern, but Hippocrates neglected to state when that day was.

Aristotle (384-322 B.C.) thought that the menstrual fluid was the female reproductive element, but only in that it provided nourishment for the germ supplied by the male. He said:[4] "Since the fluid which is produced by females (menstrual fluid) corresponds to the generative fluid of males, and it is not possible for two separate secretions to be present at the same time, it is clear that, in the reproductive act, the female supplies no sperm". And later:[4] "it is only after the evacuation (of the menses) that conception is possible, in most cases". Aristotle's reasoning was that during the actual flow, the male secretion could not reach the uterus against the current of the flowing blood, that late in the intermenstruum the uterus was dry and bloodless, and that the germ supplied by the male could implant itself and be nourished only just as the flow was stopping. The discovery of the ovary, in 300 B.C. by Herophilus at Alexandria, had no effect on then current theories. He called the ovary the testis muliebres or female testicle, apparently recognizing its function, but made no suggestion as to when or how it acted.

The first fifteen centuries A.D. were sterile as far as contributions to the solution of the problem are concerned. Even the experience of those of the Jewish faith was disregarded, and the Aristotelean theory persisted. The Jews adhered rigidly to the Biblical injunction: "But if she be cleansed of her issue, then she shall number to herself seven days, and after that shall be clean". In some localities, according to Mamonides, in the 12th century, the rabinical in-

The Author

● Dr. Bryant, Cincinnati, Ohio, is a graduate of the University of Cincinnati College of Medicine, 1932; member Ohio Hospital Obstetric Society; assistant attending obstetrician, Cincinnati General Hospital; attending obstetrician, Bethesda and Christ Hospitals, Cincinnati; instructor, department of obstetrics, and clinician, out-patient dispensary, University of Cincinnati College of Medicine.

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terpretation of the above passage was more strict, and a woman considered unclean (that is, unfit for coitus) for seven days after the seventh day following the onset of the menses, thus denying coitus for 14 days after the beginning of the period. The significance of this law in respect to the Aristotelian theory was not recognized.

After the middle of the 16th century, there was renewed interest in the problem of human reproduction. Fallopio (1523-1562) rediscovered the tubes which now bear his name. He also described ovarian follicles, but did not know what they were. In 1621 Van Horne suggested that the testes muliebres contained ova. Steno (1638-1686) proposed the name ovary in place of testis muliebres, on the assumption that the follicles described by Fallopio were ova. DeGraaf in 1672 further described the follicles which now bear his name. He experimented extensively on rabbits and believed that the females supplied ova, that they were fertilized while still in the ovary, and that they were discharged only after coitus. By an unfortunate analogy (the rabbit being one of the very few animals which ovulate only after coitus) this theory was applied to all mammals. The nature of the ovum was unknown. The cell theory—that all cells are derived from pre-existing cells—was not formulated till after 1838. It was believed by one school of thought that the ovum contained a fully-formed individual, and that the sperm merely stimulated its growth. Bonnet (1720-1793) even asserted that all the generations that have been and will ever be were thus contained within the body of Eve. The Spermists, with Aristotle, believed that each sperm contained a miniature individual, and that each ejaculation was populated with "a king, princes, ministers, magistrates, paupers, rich persons, merchants, soldiers, children, old men, etc."

Kerckring (1643-1693), a contemporary of deGraaf, reverted to the ancient Hindu theory, in modified form, and thought that ovulation occurred as a result of the onset of menstruation, or from sexual stimulus. Mauriceau (1637-1709) believed that conception occurred independently of the onset of menstruation. Scott in 1750 showed that there was a definite relationship between the ovary and menstruation. This discovery was accidental. He removed from a normally menstruating woman bilateral inguinal hernias. After the operation the hernial sacs were opened, and found to contain the ovaries. The woman never menstruated again.

Horn in 1817 took a great step forward when he advanced the theory that ripening of the ova occurred periodically and independently of coitus. Dumas in 1824 nearly made a great discovery when he observed that ova found in the tubes or abdominal cavities of animals were smaller than the "ova" (really follicles) in the ovaries. It remained for Van Baer to discover the true mammalian ovum. He found it in a graafian follicle of a bitch. He reported his discovery to the Academy of St. Petersburg in 1827.

The remaining portion of the 19th century was marked by a variety of theories, based more and more upon animal experiments, postmortems, and observations made at operations. In the 40's Gendrin and Richey advanced the idea that ovulation preceded menstruation, and somehow determined it—the very opposite of Kerckring's two hundred year old theory. Bischoff reaffirmed Horne's observation of the independence of ovulation and coitus. Pouchet agreed, but made a faulty observation which received credence almost to the present day—that heat or estrus in lower animals and menstruation in the primates were synonymous. It had been definitely established that in most animals ovulation occurred at the end of heat, and by analogy it was concluded that therefore ovulation occurred at the end of menstruation in humans. This theory was warmly supported by Heape at the turn of the century, and as late as 1929, DeLee supported this idea, for he stated "Heat in animals (estrus) is analogous to menstruation." Kiwisch in 1851 and Pfluger in 1865 both felt that ovulation and menstruation occurred at the same time as a result of periodic changes in the nervous and vascular systems in the pelvis. Reichert in 1868 brought what he thought was conclusive proof of the Gendrin-Richey theory of pre-menstrual ovulation. His conclusions were based on the recovery of a very young embryo from the body of a suicide. His, a few years later, gave strong support to this theory. It is interesting to note that until the very end of the 19th century, it was believed that fertilization occurred in the ovary.

As the 20th century approached, evidence began to accumulate that ovulation and menstruation need not be synchronous. Leopold as early as 1883 believed the two functions to be totally independent. He based his theory on his own observations at a large series of operations, using the corpus luteum as his criterion. He estimated the age of the corpus by gross inspection, a singularly unreliable method. Tait in his text book published in 1886 even denied the periodicity of ovulation, and therefore any constant relation to menstruation. He said: "It is perfectly certain that ovulation is by no means a periodic process in the sense of being monthly." In another place he foreshadowed our current theory, in saying: "I have very frequently seen an ovisac on the point

of rupture, or just burst, when the patient was midway between two menstrual periods".

The work of Frankel first published in 1903, and followed by other papers in 1910 and 1913, laid the groundwork for our present theory of intermenstrual ovulation. He was especially interested in the corpus luteum as a gland of internal secretion. His theory Corner[6] outlined as follows: ". . . a follicle grows, ruptures, and is converted into a corpus luteum; the ovum is discharged and transported through the tube; meanwhile the uterus undergoes changes preparatory to nidition of the embryo, by which it attains the premenstrual type of structure. The premenstrual stage of the humans is thus akin to the post-estrus stage of other mammals". Fraenkel concluded that, on the average, ovulation occurred on the 19th day of a 28 day cycle. In 1908 Hitschmann and Adler described cyclic endometrial changes in relation to menstrual periods. In 1911 R. Meyer described microscopic changes in the corpus luteum by which its age could be more accurately determined—an important advance since gross inspection of the corpus luteum had previously led to false conclusions. In 1913 Meyer and Ruge II attempted to correlate the cyclic changes in the corpus luteum and endometrium, and concluded that ovulation occurred in the first post-menstrual week. This view was shortly modified and ovulation placed between days 8 and 14. Schroeder, in 1913, by the same method, decided on days 14 to 16.

During the World War, a new clinical method of determining ovulation time was advanced. This involved the study of pregnancies, among the wives of soldiers, resulting from isolated coitus, or coitus during a short time interval (furloughs). According to these studies, pregnancy could result from coitus at any time during the menstrual cycle, including the period of actual flow. The optimal time for conception seemed to be between the eighth and tenth days after the onset of the flow. Another method of investigation involved estimating the ages of very young embryos. This too seemed to show that pregnancy could result from coitus at any time during the cycle. The conclusions based on both these methods have been seriously questioned because so much of the data depends upon the memory and veracity of patients. Corner in 1923, after a thorough review of all available data, concluded: "We have good reason to believe in the occurrence of periodic maturation and discharge of Graafian follicles at a time near the middle of the interval (in a typical four-weekly cycle) or 10 to 15 days preceding the onset of menstruation". He suggested that apparent discrepancies could be explained by extra-cyclic ovulation, by survival of functioning sperm for as long as two weeks, and by proving the unreliability of certain statistics.

Since 1920 numerous types of investigation have tended to confirm the theory of mid-interval solitary spontaneous ovulation. Several investigators have reported cases of intermenstrual pain with or without bleeding, thought to indicate exactly the time of ovulation. A short-lived change in the character of the cervical secretions seems to occur in some women at about this same time. One author sought to show a definite increase in sex desire during the middle three or four days of the cycle, with a second increase near the menstrual period. Monkeys apparently show an increased desire for coitus during the time of ovulation, which has been definitely established as occurring from the eighth to the twentieth day of the cycle. The analogy between the monkey and human cycles is receiving more and more confirmation. Examination of blood and urine hormones yields suggestive data. Free eggs have been recovered from the tubes and uteri of women, always toward the middle of the intermenstruum. The vaginal smear method so successfully used in laboratory animals has been applied to humans with some success. Records of cases of artificial insemination are inconclusive. Changes in the electrical conduction properties of the pelvis, variations in rectal temperatures, and the effect of X-ray castration upon subsequent menstruation, all point to roughly mid-interval ovulation.

A very widely accepted theory today is that which bears the names of Ogino and Knaus. Ogino observed the condition of the ovaries of women at operation, and concluded that "the ovulation period occupies five days between the twelfth and sixteenth days before the menses, having no connection with the length of menstrual periodicity".[7] This new concept—relating ovulation entirely to the next menstrual period —is somewhat less arbitrary than that of Knaus. This worker places ovulation almost invariably on day 15 of a 28 day cycle, that is 14 days before the onset of the following menstruation. His conclusions are based upon changes in uterine response to posterior pituitary extract. Using the more conservative figures of Ogino, and relying on the belief that the ovum is fertilizable for only a few hours, and the sperm potent for three days at most, these and other investigators postulate that a woman can conceive only during a short interval between menstrual episodes. This fertile period theoretically always bears a definite relationship to the next ensuing period, and not to the one just past, except in an absolutely regular individual. A number of series of cases have been published in which avoidance of coitus during the fertile period has been used as a means of avoiding pregnancy. The results on the whole have been encouraging, but enough failures do

occur to cast a very genuine doubt upon the absolute truth of the theory.

Where is the trouble? Why have conceptions occurred when couples have religiously avoided coitus during the "fertile period"? Why has pregnancy apparently resulted from isolated coitus during the actual flow? Why, from a study of young embryos, does it appear that conception may have occurred on almost any day of the cycle? May the separate ova of twin pregnancies be extruded several days apart? If so, may there not be numerous cases where a second ovum is expelled but fails to develop because another has already been fertilized? And how can we explain the fertility of the ancient Hindus, to whom coitus was denied after the twelfth day from the onset of the flow?[1]

Extracyclic ovulation would answer many questions as yet unanswered. But Latz says: "My practical experience indicates very strongly that there is no extraordinary ovulation in human beings . . . To my knowledge there has not as yet been reported in the medical literature one case of extraordinary ovulation provoked by coitus". But Stein wrote in 1935, " . . . it is contrary to the principle of perpetuation of the species to place the period of maximum sex desire and euphoria (as determined by Davis in 1929) exactly in the sterile phases of the sex cycle. There is a discrepancy somewhere . . ." Samuels,[5] in 1938, by an ingenious use of the spectroscope, thinks he has demonstrated that many women ovulate two or even three times a month. Laporatomy findings and pregnancy resulting from isolated coitus seem to confirm his theory. The recent discovery of regular and repeated anovulatory menstrual cycles would seem to cast grave doubt on the theory that there need be any constant relationship between ovulation and menstruation. Also Evans and Swezy believe that new eggs are constantly being generated from the germinal epithelium, and that their ripening need not, therefore, be cyclic nor always related to menstruation.

The weight of evidence, I believe, supports the theory of solitary spontaneous ovulation occurring during the intervals between periods and bearing a rough relationship to the next ensuing rather than the last period, but even this has not been proved beyond cavil. It is only by investigation such as will be reported here today that the truth will finally out.

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Aminophyllin in Bronchial Asthma

Aminophyllin should be given intravenously. Oral administration is ineffectual. Intramuscular injections are impractical because they are too painful. Injections should be given very slowly. We prefer to use a 26 guage, half-inch length needle. We take as long as five minutes to administer the solution. It is essential that the drug be diluted with an adequate amount of distilled water, saline or glucose solution, otherwise unpleasant reactions are more severe, and sclerosis of the veins will result from repeated injections. We have found that diluting the solution to 10 cc. is adequate. However, we prefer to use the 0.48 gram (7½ grains) of aminophyllin in 20 cc. of solution. It is important that extravasation of the solution into surrounding tissues should not occur. Extravasations of aminophyllin solution result in intense burning at the site of the extravasation, and as a rule, require novocain injections to control the pain. Slight pain caused by minute extravasation may be controlled by hot or cold applications locally.

Reactions, more or less unpleasant, although never serious, have occurred fairly frequently. As a rule, an initial hyperpnea with an increase in the intensity of the wheezing is observed. The patient may complain of a feeling of warmth, particularly in the face. A facial hyperemia may be observed. A burning sensation in the eyes, "spots before the eyes", a metallic taste may occur at times. Occasionally there are nausea and vomiting. As a rule, these reactions are evanescent. We have never observed the cerebral type reaction reported by Herrmann and Aynesworth.—B. G. Efron, M.D. and Peter Everett, M.D., New Orleans; New Orleans Med. and Surg. Jr., Vol. 92, No. 2, Aug., 1939.

X-ray showed an apparent stone shadow, which indicated operation. The operation was twice deferred, and the cause of the X-ray shadow was found to be a nonpigmented mole.—Gordon F. McKim and Parke G. Smith, Cincinnati.

Important Features in the Treatment of Fractures

ALLEN F. VOSHELL, M.D.

THE evident increase in fractures of all types due to the changed speed of travel, the use of more and faster automobiles and machinery, the more active and freer lives of us all, et cetera, makes it constantly more important that we who must treat the sick and injured should review the fundamentals of all treatment and insert sound modern methods when proved of worth. As an orthopedic surgeon who appreciates the changing times, due to daily contacts with two active fracture services in a large metropolitan area, I am glad of this opportunity to strongly emphasize the need still of a clear understanding of certain fundamental features which will ever be present as long as men are men and bones are bones. The frequency with which complex and serious fractures occur these days has caused changes in treatment methods, but nothing can alter age-old principles of diagnosis and basic physiological-anatomical treatment. The fear of being elementary does not hinder me from discussing some of the primary features of diagnosis and first-aid care, because the end-result may depend upon these initial steps. In fact, I firmly believe that the most experienced man on the hospital staff should be in charge of the Accident Room and even he should be supervised by an ever-ready advisor.

DEFINITION OF FRACTURE

The term "fracture" constitutes by definition a break in the continuity of bone tissue and yet injuries to the surrounding soft parts, such as muscle, tendon, ligament, blood vessels and nerves, changes in bone alignment and joint relations and the general effect upon the patient as a whole, at the moment and in the future, physically, psychologically and economically may control the system of treatment to be followed and the end-result for both bone and patient. The expansion and development of X-ray facilities has simplified and clarified fracture work, but this has also led many physicians to believe that fracture treatment may be built entirely around X-ray films; prognostication and determination of disability cannot be and should not be based upon the X-ray films alone, these should be used as an adjunct facility only and evaluated as such. A fracture through a tuberosity of the tibia may dislodge or tear loose a semilunar cartilage, invisible in the X-ray picture, and this in turn may later cause severe disability in spite of a perfect bone repair.

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The Author

● Dr. Voshell, Baltimore, Maryland, is a graduate of Johns Hopkins University School of Medicine, 1919; fellow American College of Surgeons; American Academy of Orthopedic Surgeons; member American Orthopedic Association; certification of American Board of Orthopedic Surgery; director physical therapy departments, University of Maryland Hospital and Dispensary; advisor in occupation therapy, Junior League Workshops, Baltimore.

The soft tissue damage in every fracture must be carefully noted and evaluated with treatment, early and late, consistent with its location and extent. In this respect the specialties known as physical and occupational therapy can be of inestimable value and should be utilized to their fullest.

Laceration or contusion of the quadriceps muscles in association with a fractured femur might eliminate all or a large part of knee joint motion after union and fibrosis is complete. Another case in point is that of a little girl who had a fracture of both bones of the forearm with good position and union, but a hematoma caused intermuscular adhesions and secondary contracture involving all the flexor muscles of the hand and fingers; this required an extensive operative procedure and a year of follow-up with physical and occupational therapy.

Vocational rehabilitation enters also into the picture when a change in occupation must be made due to certain results of fracture. The day when the surgeon's responsibility is limited to the local injury and ceases when that is healed has passed, if ever it were present; it now is necessary for the surgeon to care for the local part, the patient as an individual, to estimate his disability and to help to readjust him in industry.

PHYSIOLOGICAL BONE CHANGES

Three periods exist in the life of every individual, with physiological bone changes characteristic of each and in consequence with correspondingly distinctly different reactions to injury and disease. These three so-called age periods are: the first or epiphyseal from 0 to 20 (approximately), the second or young adult from 20 to 40, and the third or old age from 40 to death.

During the first age period all bones are rapidly growing in length from their epiphyseal

areas which are separated from the diaphyses by a cartilaginous plate; the whole bone is very vascular and hence quite pliable, while the ligamentous tissues in and about the joints are soft and loose so as to absorb the forces incident to injury, et cetera. It is well known that the point of separation between epiphysis and diaphysis is weaker in this period than either the shaft or the joint structures and in consequence, separations occur with the same injury that would cause fracture near the joint in the third or dislocation in the second periods.

More severe forces, especially of other types than simple falls, such as direct blows and crushes will cause fractures of the bone shaft, but without much comminution. It is during this time that one sees the incomplete, the greenstick, the partial and subperiosteal fractures and epiphyseal separations; rarely do true dislocations occur or splintering fractures, and almost never fractures near joints without associated epiphyseal separations. I recall the case of a young girl, aged four, who was referred with a diagnosis of bilateral recurrent dislocations of both shoulders following minor injuries. On the above basis it would be quite unusual to have a shoulder dislocation in a child of four, but to have recurrent dislocations of **both** shoulders would be almost unheard of and impossible without other associated disease as a cause. In consequence, a tentative diagnosis of pathological fractures or recurrent epiphyseal slipping was made. X-ray films showed fractures through cysts due to xanthomatous degeneration located near the shoulder joints. It is also to be remembered that early in this first age period the X-ray film does not visualize the undeveloped ossification centers of the epiphysis and joint-bones, which makes a careful clinical examination absolutely essential, both for diagnosis as well as treatment. A negative X-ray is almost worse than useless.

The period from 20 to 40 is characterized by the full development of all bone and ligamentous tissues with the greatest bone strength in resistance to injury and the absence of the formerly weak epiphyseal junction. The fibrous joint structures, therefore, receive the brunt of ordinary falls and leverage forces so that true dislocations occur commonly with fractures near joints uncommonly. The strenuous and varied activities of life, however, at this time, especially in industry and travel expose the individual to so much more serious and complicated injuries that no simple rule can expect to cover the situation. It is in this age that one must combine the best of his diagnostic and treatment abilities, particularly since the individual must be returned to his economic activity in the shortest time possible with minimal functional disability.

After 40 the bones become more calcified and brittle, the ligaments less elastic and more leathery, and the patient less active and acute with consequently more falls. Due to the less responsive and stronger soft tissues in and about joints, dislocations become rarer, but fractures near joints, simulating sprain-fractures, occur more consistently with comminution or splintering of the fragments. Fractures elsewhere are also characterized by comminution with sharp spiculation. The common fractures of this period due to the above features are the Colles' type near the wrist, Pott's, near the ankle, and the hip and shoulder fractures.

Although we are not considering diseased processes at this time, the common ailments of an individual may be similarly roughly classified, such as: acute embolic osteomyelitis, rickets, tuberculosis and acute poliomyelitis during the first period; venereal infections, industrial poisoning, pulmonary tuberculosis, infectious arthritis, certain sarcomatous tumors, et cetera, during the second; and carcinomatous tumors, vascular and cardiac degeneration influences, degenerative arthritis, et cetera, during the third.

CLINICAL AND X-RAY HISTORY

As may be expected from the previous remarks, one should first and foremost determine the age of the patient before taking a careful history of the injury including the fracturing force or a description of the fall and the immediately following sequence of events. Two types of examinations are then made, one clinical and the other X-ray. The clinical examination should determine the presence of changes in general posture and extremity alignment (deformity), local swelling, ecchymosis, muscle spasm, abnormal motion, crepitus and edema. A moderate local rise in temperature and an elevation of general temperature may be expected in severe fractures with much soft tissue contusion, especially in children. I might here bespeak for the patient a gentleness of touch in the manual examination to determine motion, crepitus and so on; gentle pressure and palpation will elict much more information than the use of a heavy hand and at the same time will win the patient over and develop real cooperation from then on. A proper analysis of the history and clinical findings will indicate a reasonably accurate diagnosis before X-ray assistance is called in.

X-ray films are essential as a record and diagnostic aid, as a help in determining and carrying out the primary treatment, and as a means of noting the position of the bone fragments during the healing period as well as the progress of bone proliferation. Two X-ray views, one at 90 degrees from the other or a stereoscopic pair of films, must be obtained in all suspected or known fractures. The fallacy that one view is self sufficient is clearly demonstrated when a marked, but

accurately over-riding fragment is found in its displaced position by someone else, or at a later date, much to one's discomfiture. X-rays also are permanent records of the case and indicate the condition of the area before, during and after treatment. Fluoroscopic examination is not alone sufficient, but can be used as an adjunct and aid in treatment, yet it should not supersede permanent films. It is important that films be made before and immediately after reduction.

The wisdom of understanding the elements of X-ray reading, thereby being able to translate details for oneself as well as appreciate the roentgenologist's statements, needs no comment here as it speaks fully for itself. It is very strange, however, that even now, in this supposedly advanced era, surgeons will persist in treating fractures without X-rays or on fluoroscopic check, not appreciating the very serious difficulties that might accrue without a most necessary permanent record. It is in fact, illegal in many states to treat fractures without proper X-rays and the surgeon who does not get X-rays accepts the burden of proof of error, in principle and in court. I would think it unwise even to assume responsibility for a fracture if a patient refused to have the proper X-rays taken. The cost of a few films is insignificant, compared to the disability and difficulty resulting from failure to utilize X-ray facilities in a modern way.

REDUCTION AND IMMOBILIZATION

All successful fracture treatment depends upon the accomplishment of two factors, anatomical replacement of the displaced fragments of bone and retention of the same; in other words, reduction and immobilization. The former may be carried out by manipulation, traction (skin adhesive or skeletal) or operation, the latter by splints, plaster casts or braces (internal or external). I shall not endeavor to analyze the numerous and variable ways of utilizing the known methods of treatment, but will mention only a few features of importance. When using adhesive for traction or joint strapping, paint the skin with compound tincture of benzoin which, when thoroughly dry, acts as an excellent surface for adhesion and is also mildly antiseptic. On removal of the adhesive the skin may be cleansed with carbon tetrachloride and soap and water. If a renewal of the adhesive straps is desired, repaint with benzoin which will give just as good adhesive surface as in the first case.

One of the most uncomfortable and severe sequences of trauma, contusion or fracture, is the extensive hemorrhage into the surrounding soft tissue spaces; this always develops rapidly. The prevention of a large percentage of this will avoid much of the discomfort usually present during the first few days and will prevent the delay incident to the absorption of this hemorrhage. How may the hemorrhage be controlled? One element can constrict torn blood vessel ends and thereby diminish hemorrhage, especially if applied promptly after an injury. Cold is this important factor and it is used in the form of ice bags or iced compresses. An important caution in the use of ice is to remove it periodically and allow the circulation to flow freely for about twenty minutes out of the hour so that too long constriction may not cause a slough; ice will "burn" as will heat, so that skin protection is necessary. Use ice for 36 to 48 hours after fracture and then apply warmth, not intense heat, for several days, especially over the proximal vessels.

MANIPULATION REQUIRED

Manipulation of some sort is required for the majority of fractures and hence its science should be thoroughly understood. A clear perception of the forces incident to the fracture, the deforming effects of anatomical contractures, et cetera, and the mechanics necessary to correct these is a foregone conclusion, though I regret very much to say that this is too often forgotten. When the above conception is not present, brute force is so often used trying to replace skill and intelligence. Strength is rarely the potent factor in the reduction of a fresh fracture; gentleness of manipulation should be the feature of all of this work. A sound axiom is: skill, not force.

In the use of skeletal traction, especially in conjunction with a mechanical appliance, be certain to remember that you are pitting an inanimate object against an animate one, which might easily cause damage to an uninvolved nerve or vessel, ligament or muscle; only such force should be used, therefore, that falls well within the factors of resistance consistent with the patient's size and development. Slow traction can be tolerated much better than that too abruptly applied and yet, reduction must be obtained as promptly as possible. Too much retained pull may cause non-union to develop.

We are living in a mechanical age in all walks of life and surgery has not been excepted. All are familiar with many of the gadgets that are now on the market as well as in many offices and hospitals, and I doubt not that plenty of them have been used very little due to the failure of the individual surgeon to learn their intricacies and how to utilize them. No mechanized apparatus can be expected to function unless the operator understands it fully and then uses it properly and in conjunction with all the anatomical and physiological factors involved. Certain fracture treatments have been simplified and improved in many ways through the development of machines which utilize skeletal traction and manipulation for reduction and the retention of same, particularly since the development of non-irritating metals; but there remain many fractures of all types which can still best be

treated by the methods long since proved efficient and satisfactory.

The technic for the use of plaster casts necessitates an accurate fit with a minimum of padding except over bone prominences and superficial nerve trunks and a careful watch for circulatory embarrassment from swelling. The development of a Volkman's contracture or gangrene of a toe or finger is of very serious import; these can be avoided by properly applying the cast or splint and carefully supervising it thereafter with prompt loosening or removal if necessary. A pressure slough over a bony prominence is of less serious consequence, but yet should not happen; it is quite embarrassing and may lead to permanent disability. Every fracture should be observed within 18 hours after reduction at least.

SHOCK

Before discussing specific elements of treatment or case examples, I must remind you that shock is always an important factor and must be reckoned with before instituting any feature of treatment. Even after a minor fracture, some patients will go into shock, perhaps profound in character; it should always be expected and preparations to cope with it must be at hand. It is better to temporarily splint the part for a short time, than to lose a patient by shock.

In brief then, do not forget that you are dealing with a human patient who has many complicated parts which go to make him up. A disturbance of one part may affect many others or the whole, so that due consideration of the general condition of the total patient must be primary and not the isolated injury uninfluenced by or uninfluencing the rest. The care of primary shock, replacement of lost blood, nourishing food, bone stimulating diet and medicinal accessories, improvement of local and general tissue tone by physical and occupational therapy and the proper mental attitude are all of very great importance in fracture work and must be considered in their proper light and in every case. The day when reduction and splinting was the story of fracture treatment has passed, if it ever was present, and we now have the modern period of treatment aided by newer mechanics and a more advanced knowledge of the human body in all its complexities; we must treat the patient and the fracture, not just the fracture, and should utilize all the accessories available.

In order to emphasize the features previously mentioned, I would like to present some individual examples which have occurred recently. They will show rather the ease with which errors in diagnosis and treatment can be made and why, than the routine or standard types commonly encountered. If I can impress upon you the necessity for a careful study of all the elements in each case and for a treatment method based upon them, I shall feel amply repaid. No two fracture problems are identically alike and hence no standard procedure can be offered for any locality or type of fracture. The futility of trying to do this should be very apparent to all.

Metacarpal fractures are listed among those that are considered simple as to treatment and certain as to union and end-result. A standard method of treatment is to bind or strap the hand over a roll of gauze or bandage or over a metacarpal splint. Note, however, what happens in a case where the fragments are angulated dorsally; the standard method increases the deformity. This fracture should be reduced by a reverse manipulation and splinted on a flat surface with pressure over the dorsal angulation, or with traction on the fifth finger. The first metacarpal which really is a phalanx embryologically is frequently fractured at or near its base. The abduction position usually advocated is useless when the line is oblique from within out or when a partial epiphyseal separation is present. Under these circumstances continued traction or full palmar position must be used. Immobilization is necessary for about three weeks in these cases.

The chief factor in the care of a fractured carpal bone is to keep the wrist immobilized long enough; in the case of the scaphoid or trapezium, the thumb must be included in the cast. Not less than six weeks of absolute immobility will suffice, but with sufficient time, bony union may be expected.

Fracture of the radius and ulna near the wrist form perhaps the largest group and are quite common; yet they are so often wrongly diagnosed and improperly treated. This situation is due to the fact that all fractures in this region are considered by some to be Colles' fractures and treatment is instituted according to the textbook descriptions for this particular fracture. In truth, however, there are several different varieties of radial and ulnar fractures in this location with treatment methods at complete variance with each other. Before presenting these fractures, let me describe and emphasize the essential features of the normal bone and joint relations near the wrist.

The radio-carpal joint may be considered to have two joint planes, a lateral and an antero-posterior. The lateral is due to the fact that the radius projects about one-quarter to one-half inch more distal than the ulna; this plane makes an angle with bone shafts of about 100 degrees. The effect of this angulation is to cause the hand to fall naturally into some ulnar deviation. The antero-posterior plane is also at an angle of about 100 degrees with the forearm bones and is essentially the distal surface of the radius. This angulation allows full wrist

flexion which is greater than extension. These plane relations to the forearm are basic factors in determining changes due to fracture and the success of the reduction. The radial notch as noted in lateral X-rays and felt just proximal to the radial styloid acts as an excellent clinical determinant of displacement and reduction in this region.

USE ANATOMICAL DESCRIPTION

The use of an individual's name to designate a fracture is bad practice since there is a tendency to unintentionally include variations from the original description. This tends to make uncertain what is intended. It is better to use anatomical terms for localization and position of fragments and make no mistake. Under the guise of Colle's fracture many include all fractures of the distal end of the radius no matter in what direction the fracture line runs, what age the patient or whither the displacement.

In order to succeed in obtaining reduction, one must clearly understand the relative positions of the fragments, how they reached their positions of displacement and what forces must be exerted to replace them. It is evident that flexion of the wrist should not be used for a fracture with palmar displacement, nor extension for posterior displacement, a typical Colles'. Traction may even be a necessity to obtain and retain reduction. Be careful to hold the fragments in position yourself after reduction during application of a cast or splint; so often a good reduction is lost by transferring the part to an assistant or turning the hand over. If it is necessary to put the hand in a position which if retained too long would cause prolonged dysfunction, such as full flexion and pronation, be sure to regain in gradual stages the preferred position of extension and ulnar deviation.

Change the cast in ten days or two weeks when soft callus should prevent movement of fragments unless too much roughness is used; reapply a cast with hand corrected one-quarter or one-third. Repeat the process at the end of another week when physical therapy may be utilized carefully. A third change will usually suffice until freedom is allowed. It will be very helpful if the cast or splint is made short enough so that free use of the fingers is possible; this helps tremendously the circulation of the hand and the tone of the muscles. The necessity of regaining the dorsal position with ulnar deviation is that the hand grip and lifting strength is lost when flexion and radial deviation is present; the joint plane relations are the factors which control this and hence every effort must be made to return the end of the radius to its normal position.

In fractures, just as in many other things, nature has arranged for exceptions to prove the rule and the supracondylar region of the elbow is the one most commonly noted. Instead of an epiphyseal separation being frequent in the first age period, fractures of one or both condyles, or a transverse supracondylar fracture are the usual types with displacement in any one, or a combination of, the several possible directions. Displacement posteriorly of the elbow unit causing the extension type of deformity is the most common, with flexion displacement next; a certain amount of lateral shift and rotation is also quite usual. Damage to the major vessels and nerves is fortunately uncommon, but hemorrhage into the joint cavity is not, so that the joint is filled with blood which may organize into fibrous bands and cause marked loss of joint movement. A good plan is to aspirate the blood from the joint before clotting can take place; this will also diminish the amount of infiltration of the capsule, et cetera. Be sure to use strict aseptic technique.

MECHANICAL MANEUVER

Preceding the mechanical maneuver of flexion or extension of the elbow to correct the posterior or anterior displacement of the condyles, one must be careful to rotate the condylar unit into line with the humeral shaft while someone holds the shaft steady and to correct lateral deviations. The direction of necessary rotation of the elbow is usually outward and the success of the manipulation can be determined by palpating the prominence in the bend of the elbow. After correcting these, the anterior or posterior position will usually hold satisfactorily. Do not be fooled by a negative X-ray in very young children who have not developed visible epiphyses and be gentle in your manipulations. If accurate reduction is not obtained as determined by clinical and X-ray examinations, have an open reduction done promptly. It is very important that reposition of anatomical relations be accomplished, since much loss in the carrying angle or changes in the olecranon-trochlear fit will cause considerable disability, especially the latter. May I strongly emphasize this point, the condylar units must be replaced and not excised as these are epiphyses and are necessary for the proper growth of the humerus and function of the elbow; because they seem wholly detached do not take them out, but peg or nail them back if necessary. Only once in all the literature, has a condyle regenerated after excision and this was because the epicondylar epiphysis was left in situ.

The olecranon when fractured presents a problem for prompt decision as to open operation versus splinting. In all cases of fragment separation, it is my belief that immediate open operation is the method of choice and is conservative in the end. I know of no other way

to remove the triceps fascia that becomes caught between the fragments and to retain fragment relations when early motion is instituted. The removal from the joint cavity of clotting blood will also decrease or prevent later adhesions. Recently metal pins and pegs have been used with seeming success, but my best results have followed wiring with stainless steel and immobilization in a position of 100 degrees flexion with motion beginning in about ten days or two weeks.

SHOULDER FRACTURES

Shoulder fractures with dislocation of the head of the humerus or with marked displacement of the shaft, usually anteriorly under the coracoid process, present problems which require all the skill of the surgeon and every associate facility of hospital and X-ray. It is true that simple manipulation or mobile traction will suffice sometimes, but many demand special traction or even open operation and since the majority of this type are in old people the choice of treatment procedure is more difficult.

When necessary traction with the arm elevated to shoulder level is satisfactory, though other positions may be more suitable such as forward, above the head and so on. Adhesive skin traction is sufficient most of the time, but skeletal traction through the olecranon or humeral condyles with the elbow flexed may be needed. Clear, accurate two view X-ray films offer the most helpful information as to progess being made.

Fractures of the shaft of the femur in young children up to six to eight years of age are usually treated by overhead right angled traction when immediate reduction is impossible. One or both legs are included in the traction which lifts the buttocks from the bed to exert counter traction, the knees being fully extended. In those children whose knees extend to the full 180 degrees position or who have not developed their hamstring muscles very much, this system works very well and reduction is obtained in a couple of days. But in those patients who are the reverse of the above, reduction will not be accomplished until the knee is flexed and it is in these that skeletal traction with flexed knee is essential. The most important features in the treatment of femoral shaft fractures is to obtain length with end to end apposition and to avoid backward or inward bowing, especially in the lower-third region. The femur is notably slow to unite except in young children, so do not give up hopes of union under 12 to 18 months. When feasible use a protective walking splint which shifts the weight to the tuberosity of the ischium from the shoe and relieves the femur of almost all weight bearing, yet allows physiological stimulation.

Fractures of the shaft of the tibia constitute a group which includes many very complicated types with end-results of varying kinds. Time will not permit discussion of more than one phase of them and I have selected the oblique fracture of the lower third with an associated oblique fracture of the upper third of the fibula, the tibia being angulated toward the fibula and over-riding about three-quarters of an inch. This fracture ordinarily would be put in skeletal traction with a wire or pin through the tibia just above the malleolus. Unfortunately, however, straight traction, no matter how heavy the weight, will not reduce this fracture since the pull is shifted to the fibula by the interosseous and ankle ligaments and then back to the upper, long fragment of the tibia through the proximal bands of the interosseous ligament. In fact, therefore, the pull is really being exerted in major part on the proximal fragment of the tibia instead of the movable distal fragment. Manipulation of the loose fragment must be carried out through the foot and shaft of the fibula, if open operation is to be avoided; early manual reduction will often give surprisingly good results.

In general the treatment of lower leg fractures should aim to avoid posterior and inward bowing, since variations of joint plane relations between the ankle and knee cause more functional disability than most other things. The tibial shaft is slow to unite, taking frequently four to six months or longer, so that protection from misalignment and controlled end to end stimulation by a walking cast or brace is advisable after eight to ten weeks.

FRACTURES OF THE ANKLE REGION

Fractures of the ankle region of the Pott's type are so well known and frequently discussed that I shall mention only one peculiarity which must be watched for and specifically treated. Fracture of the lower part of the internal malleolus accompanies many Pott's fractures and the loosened fragment is usually separated from its base when the lateral ligament gives way. As in fractures of the olecranon when the fragment is pushed back into relative position during the reduction procedure, a collection of torn ligament and fascial ends are squeezed in between, thereby preventing bone contact. In the X-ray, the separating space is not large and the tendency is to leave well enough alone with probable development of nonunion at this point and a painful weak ankle thereafter. In consequence, when bone crepitus between the malleolar tip and the base is not clearly felt and close apposition is not seen in the X-ray films, **both views**, open operation is indicated with accurate replacement and retention of this movable fragment. The operation

can be done through a window in the cast without jeopardizing an otherwise good reduction.

Very severe, comminuted and sometimes compound fractures of the ankle can many times be quite well reduced and firm union will take place readily, but great disability of foot and ankle results, leading frequently to amputation later. A painful foot is entirely useless no matter how freely movable the joints, whereas a stiff painless one will function better. In a fracture such as the one pictured therefore a very guarded prognosis should be given in spite of the reasonably good general alignment. The poor prognosis would be based upon the fracture of the os calcis with probable spur formation under the heel and the involvement of the tibio-astragaloid and subastragaloid joints which will no doubt be markedly limited in motion if not stiff. Amputation in the mid-tibial region may, however, become necessary, though time alone will tell.

The important point in the treatment of fractures of the metatarsals is to protect the long arch of the foot when weight bearing is started and for six to twelve months thereafter, as painful arch strain with flat-foot is quite common. The development of a painful bump or spur on the dorsum of the foot is to be avoided, but since it is easily felt or seen, it usually is taken care of satisfactorily.

I realize that there are many fracture problems that I have not discussed, but my main object has been to emphasize the presence of certain elements which should be remembered always in the diagnosis and treatment of fractures. To go further would result in the presentation of a textbook. I trust that some of the points mentioned will be of assistance to you.

Tuberculosis Deaths Among Young Women

The excess of deaths from tuberculosis among young women over that of males of the same age has long been regarded as an enigma by the medical profession. In an exhaustive study made in New York and Detroit, every death during one year from tuberculosis among young women was carefully investigated and several facts emerged from an analysis of the material obtained.

School life, race, nativity, participation in industrial life, insufficient clothing, poor food habits including the ever-present dieting fads, lack of sleep and too much recreation seem negligible in their influence. The real hazard is the psychic and physical changes attendant upon adolescence and maturity. Early marriage and child-bearing increase the death rate from tuberculosis in this group.—Nicholson, E., Study of Tuber. Among Young Women, N.T.A. Social Research Series No. 7.

Use of Bee Venom in the Treatment of Arthritis and Neuritis

There is a great variation in the reaction of sensitivity to the venom and most arthritics, especially those of long standing, seem to have a much higher immunity to it than do normal persons. Since presenting this paper we have had a case with such marked sensitivity to the venom that three stings divided over both elbows, one knee and one ankle produced astounding edema and ecchymosis over these joints until the skin appeared about to burst. This was also accompanied by intense pain and aching. The ecchymotic areas were approximately six inches in diameter. This severe reaction occurred three times on the same dosage. However, in spite of the severe reaction, improvement in her condition was quite unusual even in the fingers and other small joints. Inquiry revealed the fact that her father and mother had been extremely sensitive to bee stings, and that she herself had never been stung by a bee. The reaction in such cases reaches its peak about three days after the injection, and appears to be more marked and over a larger area when the venom is introduced intradermally rather than in the deeper layers of the skin.—George W. Ainlay, M.D., Fairbury, Nebr.; Nebr. S. Med. Jr., Vol. 24, No. 8, August, 1939.

Therapeutic Use of Vitamin C

The use of vitamin C in pills containing all of the known vitamins and as a prolonged substitute for a correct diet appears to be a serious mistake. In the first place the stability of the vitamin in natural sources is infinitely greater than in the pure form. Twenty-five years ago Funk remarked on the stability of vitamin C in lemon juice where it withstands heating to 110 degrees. Buffers present in fruit juices are protective probably within the man as well as outside him. In the second place, the natural sources contain other vitamins, minerals and probably many wholly unrecognized factors of advantage. Thus several careful workers have demonstrated that supposedly pure but extracted vitamin C had attributes not present in the synthetic preparations. We have yet to recognize all the vitamins if indeed we ever shall be able. The shotgun vitamin pill is therefore not a substitute for a proper diet. It is also unsound because those individuals able to afford such treatment usually do not need it while those who might be benefited are unable to buy it. A dollar will buy more vitamins in the market than in the drug store.—Gilbert Dalldorf, M.D., Bulletin, N. Y. Acad. of Med., Second Series, Aug., 1939, Vol. 15, No. 8.

Acute Abdominal Pain

EDWARD A. MARSHALL, M.D.

OBVIOUSLY, it is impossible to incorporate in a differential diagnostic chart all the causes of acute abdominal pain even assuming that the pain originates in the abdomen. Nevertheless, a large number of the frequent offenders can be considered if some sort of system is used in the first examination.

Below is presented the outline which is used at Huron Road Hospital when this frequent symptom is encountered and a brief explanation of the outline is given.

A case presenting acute pain in the abdomen will probably fall into one or more of the following six groups:

I Inflammation
II Stone
III Obstruction
IV Ulceration
V Conditions caused by interference with blood supply
VI Conditions caused by abnormal nerve supply

Fever will serve to place the case in group I or V unless the symptom pain has been present for some time. The temperature will be normal early in stone, obstruction, ulceration and most conditions causing abnormal nerve supply. In inflammation, however, unless it is due to something benign, as simple enterocolitis, fever will usually appear before the pain.

The leucocyte count and sedimentation rate in addition to confirming the presence of inflammation help through negativity by assurance that those cases in the other groups are not getting into trouble through incarceration, perforation, ascending infection, etc.

Having placed the case under the heading of inflammation the abdomen is covered anatomically. History in all of these conditions is of course second in importance to no other diagnostic procedure. In the stomach, history of ingestion of toxic material, whether in company with others of the family or the presence of the mere possibility because of upper respiratory infection, is an important aid. The diagnosis of phlegmonous gastritis will probably seldom be made but it should be thought of and local gastric symptoms with a rapid sedimentation rate will help.

The gastric contents can always be removed by a nasal tube and are of value if the contents of the respiratory tract can be eliminated.

The subdiaphragmatic area, spleen and liver, are seldom the seat of primary inflammation and therefore much more frequently come under the head of abdominal, chest or circulatory complaints of several days to years standing. Diaphragmatic pleurisy will however often stimulate abdominal disease. In the very young any severe chest infection may first be seen because of acute abdominal pain.

Coming to the subdivisions of the liver, the bile duct case is seldom seen the first time it is the cause of distress. Usually there will be a history of selective dyspepsia (discomfort on ingestion of certain foods, distention after heavy meals and attacks of dizziness, drowsiness and dullness with headache). Not so frequently the symptom of 3 to 15 second pain (in the right upper quadrant which interferes with deep breathing) if not actual colic will be forthcoming.

Here if inflammation is present, accompanying pain, stone usually is also present either in the common duct causing jaundice and acholic stools (ascending cholangitis?) or in the cystic duct the essential cause of the gallbladder's enlargement (empyema?). And usually the pain will be first followed by the inflammation.

The pancreas can only be suspected through the excruciating pain which is hardly changed by a half grain of morphine; the persistent vomiting and the obvious gravity of the disease give more than a hint. Fever and leucocytosis are not necessary early but a combination of collapse, cholemic state without jaundice and high bowel obstruction will reproduce the picture if you add pain. It is well to do blood diastase in all such cases.

Inflammation inside the gut tract will not present a difficult diagnostic problem unless it is exceedingly severe. Generally the temperature is elevated only slightly in food infection or respiratory complication. The leucocyte count and sedimentation rate will seldom be far from

The Author

● Dr. Marshall, Cleveland, Ohio, is a graduate of Hahnemann Medical College and Hospital of Philadelphia, 1930; member International Society of Gastroenterology; National Gastroenterological Association; senior member in medicine, visiting staff, Huron Road Hospital; in charge of gastroenterological dispensary, Huron Road Hospital, Cleveland, Ohio.

- I INFLAMMATION
  - Fever
  - Leucocytosis
  - Increased sedimentation
  - Tenderness
    - Local
    - Rebound

- a STOMACH
  - History—ingestion
  - Local symptoms—tender L. U. Q.
  - Contents

- b GALLBLADDER
  - History
    - P. P. H.—Selective dyspepsia, colic
    - H. P. I.—Pain to pain and fever
  - Local symptoms
    - Tender R. U. Q.
    - Mass
  - Attitude—Move with pain

- b-1 DUCTS
  - Jaundice
    - Usually no pain
    - With pain—stone?—cholemic state "SICK"

- c PANCREAS
  - History—negative
  - Local symptoms—Pain referred to L. costo-vert. angle
  - Special
    - Pain (unaffected by reasonable m. s.)
    - Vomiting (persistent)
    - Shock—collapse—blood diastase

- d GUT
  - Inside
    - History—Vomiting—cramps to diarrhea?
    - Special—Hyperperistalsis
    - Attitude—Move with pain
  - Outside
    - History—Local symptoms to sudden accident, constant pain
    - Special
      - Hypoperistalsis, distention
      - Rigidity—rebound tenderness
    - Attitude—Lie still
      Watch out for hemorrhage—ectopic?—injury?

- e APPENDIX
  - History—Epigastric cramps to pain with nausea or vomiting in 6 to 24 hours
  - Local ss.
    - Tenderness, rebound or otherwise over appendix
    - Pain—R.L.Q.—right loin
    - Rigidity
  - Special
    - Pulse, temperature ratio —
    - Sedimentation rate up before danger of rupture

- f KIDNEY
  - History—Chill, backache or urinary symptoms
  - Local ss.
    - Pain—back to groin
    - Tenderness—costophrenic angle
  - Special—Urine analysis

- g BLADDER
  - History—Urinary symptoms
  - Local symptoms—Bimanual p. e.
  - Special—Urine analysis

- h GENITAL
  - Male—Testes—Prostate—inguinal rings
  - Female
    - History—Menses—Discharge, etc.
    - Local ss.
      - Bimanual p. e.
      - Cervix (appearance of), smear

LOOK OUT FOR PERITONITIS TO FOLLOW

normal. But virulent germs may make the condition look like peritonitis so far as temperature and leucocyte count are concerned and there will be distention and rebound tenderness too. Auscultation will reveal hyperperistalsis even in those cases where the infection is high and the colon filled to erase diarrhea. The pain too is always crampy with almost complete relief between paroxysms.

With such a picture serious lumen inflammations must always be considered. Typhoid, the dysenteries, diverticulitis and others may be diagnosed if they are considered because of the history, physical findings or course of the disease.

With the diagnosis of peritonitis we have a definite help. The peritoneal cavity has only one anatomical opening, the fallopian tubes. This means that somewhere in the history we usually find local symptoms pointing where the hole was made. Penetrating ulcer, internal, strangulated bowel herniation, appendicitis and large bowel wall necrosis all add a "local symptom" touch to the picture. Of course the pelvis with its ruptured and twisted cysts, ascending infections, etc., may produce peritonitis more insidiously but it is more accessible to physical examination and laboratory work which help to even the score. The pelvis furnishes many cases of "aseptic peritonitis", hemorrhage.

Therefore we must always search the past history for local symptoms. The general tension placed on the physician as a result of the sudden accident, extreme pain, distention, rigidity and rebound tenderness will always tempt him to disregard this past history and rely upon immediate history and exceptional local tenderness for the origin of inflammation outside the gut tract. The stethoscope is not used frequently enough in acute abdominal pain. The excessive peristalsis of enterocolitis and obstruction are in direct contrast to the almost silent belly of generalized peritonitis.

The attitude of the patient is a distinct help. The patient with peritonitis will seldom be seen writhing or moving with his pain and the minute by minute history following the sudden onset will usually tend to show that the patient did not walk or in any other way move the abdominal muscles.

Because of its importance as a cause of abdominal pain, appendiceal inflammation must be treated separately even in an outline. We must remember that pathologically the usual beginning of appendicitis is a "pimple" which must be several hours old before any symptoms can be elicited. Then the first symptoms unless modified by abnormal appendiceal location are those of epigastric cramps followed by nausea and anorexia. It is not a "pimple" which causes the pain in the right lower quadrant but a more generalized involvement of the appendix as a result of infection breaking through a small, new, inflammatory wall. That is when we get the localized pain of the normally placed or retrocaecal appendix and that is when we know that we have from six to 24 hours depending upon the age of the patient, alcoholic tendencies, etc., to remove an intact appendix.

Kidney infections with chill, backache, radiated pain or urinary symptoms and, more im-

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II STONE
- History
  - Previous attacks. Sudden onset
  - Not related to anything
    - done
    - eaten
- Special
  - Lack of fever
  - Colicky pain (stone type)
- Attitude—Move with pain

a KIDNEY
- Pain
  - Local or to groin
  - Positive costovertebral bump(?)
- Special—Urine blood

b GALLBLADDER
- Pain
  - Local or radiating to right scapula, across upper abdomen
  - Interfere with respiration
- History—Selective dyspepsia or colic or both

b-1 DUCTS
- History and pain—as in gallbladder
- Special—Jaundice, acholic stools, etc.

c PANCREAS
- Pain—May radiate to left costophrenic angle
- Special
  - Usually associated with gall stones
  - Duodenal drain. Serious sequelae

III OBSTRUCTION
- History
  - Distress to crampy pain to vomiting
  - No fever to fever
- Special
  - Distension—pain increased intermittently and relieved
    - by eructation
    - by vomiting
  - Hyperperistalsis and no
    - gas down
    - bowel movement
  - Flat plate

a BANDS
- History
  - Previous operation (acquired)
  - Previous attacks (congenital)

b TUMOR
- (outside or inside)
  - History—chronic obstruction symptoms for one month plus
  - Special—Mass? ? Weight loss, etc.

c STRICTURE
- History—Previous ulcer, peptic or colon
- Special—Time of vomit after onset
  - high—early
  - low—late

d EXTERNAL HERNIA

e ABSCESS
- History
  - Diverticulitis or ulcer symptoms
    - Colon
    - Peptic
  - Local symptoms to obstruction
- Special
  - Sedimentation rate
  - Leucocytosis? ?

f GALL STONE ILEUS
- History
  - Selective dyspepsia and colic (remote)
  - Severe R.U.Q. symptoms (preceding)
- Special—X-ray

g INTUSSUSCEPTION
- History
  - Cough in young
  - Tumor in old
- Special—Blood? from rectum

h FECAL IMPACTION—Routine treatment relieves

portant, previous history of kidney pathology are very frequently diagnosed but it must be remembered that an obstruction of a ureter of sufficient gravity to produce a chill may well keep the pus out of the urine. Tenderness in the costophrenic angle through bumping should always be searched for during the routine examination.

Bladder inflammations will be diagnosed if they are thought of. Laboratory work will always help and the cystoscope can later confirm the diagnosis.

Genital inflammations will present more difficulty in the female than in the male. Routine examination of the scrotum, testes, inguinal rings and rectum will pretty well reassure one as to the integrity of the male genital tract. The latter examination will serve to pick up the not infrequently missed seminal vesiculitis which can lead the unwary into the abdomen.

Given an acute pain in the right lower quadrant of a male adolescent well over 80 per cent will be found to have appendicitis. The same symptom in an adolescent female will be due to appendicitis in less than 40 per cent of the instances. Most of the remainder will be found to have pelvic inflammatory disease or the follicle hemorrhage of mid-menstrual ovulation. History is again all-important. History of coitus, menstruation, previous treatment, douching and discharge will frequently throw light on female genital inflammation.

The colicky pain of stone with its sudden onset, characteristic radiation, absence of fever

and the tendency of the patient to weave and roll with the pain makes a fairly clear symptom picture provided the case is observed early.

Later, however, a complicating pyelitis, cholecystitis, cholangitis or pancreatitis may so becloud the picture as to make an accurate diagnosis almost impossible.

Past history will help more in the diagnosis of gall stone colic because of the prevalence of chronic selective dyspepsia and perhaps previous symptoms of gravel or duct spasm. The location of tenderness and radiation is not so reliable. Right upper quadrant tenderness is a very common symptom in individuals with no pathology of the gallbladder.

The first attack of kidney stone colic is much more likely to come out of the blue with no previous history of any illness, but the presence of blood in the urine and the radiation of the pain help to draw attention away from the upper abdomen. Extreme tenderness and pain in the epigastrium as well as the left kidney region was the outstanding symptom during the colic of the one pancreatic duct stone case which we have been privileged to see. As in most of these cases the gallbladder contained stones and, as so frequently happens, the patient was promised relief through the removal of her gallbladder with the result you would expect.

Mistakes in diagnosis in stone cases usually occur because their symptoms of stone are hidden by the veil of complication as was indicated above. Given a cystic duct stone one may expect empyema within 30 to 60 hours but the case may go much longer without developing it. When the stone is in the common duct hepatocellular disease if not ascending cholangitis is always a possibility. This is the one instance when a patient with gall stone attack will appear sicker than the patient with peritonitis. We should not forget the possibility of a ureterocolic reflex in kidney stone producing apparent bowel obstruction.

Obstruction, whether partial or complete, anywhere along the gastro-intestinal tract will usually show a distress if not actually a crampy pain which is relieved by eructation or vomiting for a short period of time. If the obstruction is complete there will be hyperperistalsis unless the obstruction has gone on to bowel wall degeneration and peritonitis. In either of these instances no gas will be passed down and there will be distention depending upon the time elapsed since the initial attack. Fever will appear only after the obstruction has become complicated either through ascending infection or bowel wall degeneration. It is well to remember that bowel wall degeneration presupposes terminal nerve degeneration with a possibility of decrease of the pain. Of course X-ray is extremely valuable in diagnosing and locating obstructive lesions.

So far as obstruction due to adhesive bands is concerned the patient will usually give a history of either previous operation (the probable location of the obstruction) or previous attacks as is found in the congenital types. Tumor producing obstruction from outside the bowel will give a long history in most of the cases beginning with fullness and distention and running through distress to recent crampy pain. If the tumor is inside the bowel a similar history may be obtained but here we more frequently get an acute history because of fecal content producing a coprostasis behind it or because of the development of intussusception. In brief, it may be said that the lower the lesion the longer the history.

The history in benign stricture will in general be the longest of all of the histories in bowel obstruction. Usually somewhere back along the line will be found a suggestion of the presence of the lesion that originally destroyed the mucous membrane and caused the scar to form. Following this the history should march side by side with the contraction of the scar tissue as it so frequently does in the adhesive band unless a loop of bowel suddenly drops behind it.

It would seem that external hernia should not even be mentioned because of its obviousness when it is a cause of bowel obstruction but the history of such a lesion may easily be missed and the lesion itself not infrequently hides under the bed clothes during the physical examination especially if it exists in the femoral or inguinal region.

Abscess reverses the usual history of bowel obstruction because here we get a primary local symptom picture and fever before the bowel obstruction symptoms appear and any disease mentioned under the outline of inflammation may produce the abscess which slowly obstructs the bowel. In the chronic abscess producing bowel obstruction the leucocyte count usually has returned to normal but the sedimentation rate will remain rapid.

Chronic gallbladder disease with a history of an extremely severe colic lasting several days whether this attack subsided yesterday or several years ago should make us think of gall stone ileus in the patient with the scarless abdomen who appears with bowel obstruction. These cases appear with sufficient frequency to make the adjective "rare" unwarranted. With the exception of X-ray visualization which is far from 100 per cent the above history will prove to be the only way by which these cases can be diagnosed.

Intussusception almost always gives an acute history when it occurs in the young. Cough or

some other phenomena producing increased intra-abdominal pressure is usually present. In the older patients intussusception will seldom occur unless a mass within the bowel acts as the predisposing cause. This tumor may or may not yield a history of chronic obstruction. With the exception of blood from the rectum and the obvious seriousness of the case due to the rapidly beginning bowel wall necrosis there is little else by way of diagnostic procedures which will indicate this type of bowel obstruction. The palpation of a mass, flat X-ray plate cannot be relied upon for definite diagnosis.

Almost every case of bowel obstruction should receive vigorous treatment from below. This will tend to rule out the possibility of fecal impaction which we are beginning to think is relatively rare. One other procedure should be attempted unless the case shows evidence of bowel wall necrosis. This entails the use of the Miller-Abbott small bowel decompressing double lumen tube which is attached to a Wangensteen suction apparatus.

The pain of ulceration cannot be described unless we cite the area in which the ulcer exists. There are two sets of symptoms which will lead the unwary away from the diagnosis of peptic ulcer. The common complication in this disease is pylorospasm and it changes the history from one in which the hyperacid syndrome predominates to one in which food aggravates, nauseates and may produce vomiting. It frequently changes the common symptom of pain into distention and distress. But somewhere back in the history we can usually find the typical periodic hyperacid syndrome of gnawing, burning or pain relieved by food occurring and abating for months at a time. The other complication is penetration which may exist either with or without pylorospasm when the patient suffers pain not unlike the crisis of syphilis which doesn't seem to be related to anything. With it will frequently be found peritoneal kick, rigidity and other symptoms of localized peritonitis. The X-ray, the gastroscope and the gastric analysis are important but not more important, so far as the treatment of the patient is concerned, than the history.

Small bowel ulceration such as occurs in terminal ileitis and large bowel ulceration, an example of which is ulcerative colitis, is almost always co-associated with diarrhea and crampy pain which tends to pass through cycles of exacerbation and remission. Terminal ileitis and tuberculosis are the least promising diseases so far as the diagnosis by sigmoidoscopic examination is

- IV ULCERATION
  - Peptic
    - History
      - Hyperacid syndrome
      - Pylorospasm symptoms
    - Special—X-ray, scope, analysis
  - Small bowel
    - History—Diarrhea, crampy pain
    - Special—Other diseases as
      - typhoid
      - tuberculosis, etc.
  - Colon
    - History—Diarrhea, crampy pain, etc.
    - Special—Stool, scope, X-ray

- V INTERFERENCE WITH BLOOD SUPPLY
  - Functional (angina)
    - History—Neurosis, functional heart disease, sudden onset
    - Special—Relief from vascular dilators
  - Organic (embolus)
    - History
      - Heart disease
      - Sudden onset
    - Special
      - Peritonitis symptoms
        - local (spleen)
        - general (mesenteric)
      - Heart murmur—fever

- VI ABNORMAL NERVE SUPPLY
  - Functional (spasm)
    - History—Neurosis, vagotonia
    - Special—Negative except
      - subjective symptoms
      - vomiting, pain, etc.
  - Organic (cord or spine)
    - History
      - Previous symptoms
        - legs
        - abdomen
    - Special
      - Metal associations as lead, etc.
      - L. P., X-ray spine, serology
      - Neurologic examination

concerned. A stool containing pus, blood or parasites will serve to place the disease in the ulcerating class and the X-ray serves as a valuable adjunct in diagnosis. If the attack is acute, typhoid fever should be considered while attempting to definitely place the cause of the ulceration. The presence or absence of fever unless the disease is acute will substantially reduce the number of differential diagnostic possibilities.

Interference with blood supply as a cause of abdominal pain is not considered frequently enough. If the interference is functional the patient will usually give a neurotic history and present a neurotic appearance. A history of angina pectoris may be present. The onset is sudden and the relief from vascular dilators (nitrites) and vagus sedation (barbiturates and atropine) is spectacular. Intravenous calcium has been used with astonishing results here at the hospital but some of the cases could very easily have been due to functional bowel wall spasm.

The diagnosis of mesenteric embolus should probably never be made unless the patient has evidence of an endocarditis. These patients tend rapidly to develop peritonitis symptoms yet the abdomen may not be rigid and the pain may be almost absent. The sedimentation rate despite its reputation for diagnosis of tissue destruction has been disappointing. If embolus is suspected it is a good rule to open all of these cases.

In the outline the title "Abnormal Nerve Supply" is meant to indicate both the result of emotional instability on the bowel and the result of actual nerve destruction. The functional type presents the same general picture and history as the case with angina. However, functional bowel spasm is far more common and usually gives the added picture of partial bowel obstruction.

Organic disease in the nerve supply to the contents of the abdomen will usually present some definite symptom picture whether it be due to cord compression or a less serious degenerative disease as lead intoxication, syphilis, etc. Here the lumbar puncture is invaluable as is a thorough neurologic examination of the rest of the body.

5005 EUCLID AVE.

This contributor states that, of all classes of people, musicians are the most susceptible to urinary calculi. He believes that this is undoubtedly due to the fact that they avoid drinking water before working hours, so as to keep the bladder empty.—Ralph L. Dourmashkin, New York.

A papilloma of the skin caused a shadow on the X-ray plate to be erroneously diagnosed as renal calculus.—William R. Delzell, New York.

Encephalitis in Man Caused by the Virus of Equine Encephalomyelitis

Equine encephalomyelitis or Borna disease of horses and cattle has been known throughout Europe since 1813. In the western part of the United States a somewhat similar malady has been observed over 60 years. During 1930 and 1931 a serious epidemic involving the central nervous system of horses and mules occurred in the San Joaquin Valley in California, and was shown by Meyer, Haring and Howitt to be caused by a filterable virus. In a subsequent paper the same authors reported that the virus differed from that recovered from the European type.

In 1935 a new focus of the disease appeared in New Jersey and Virginia. The virus recovered from this Eastern epidemic was shown by Ten Broeck and Merrill to be immunologically distinct from the Western strain of Meyer and his co-workers. Guinea pigs immunized against the Western virus succumbed to injections of the Eastern virus.

Kelser has shown that the disease can be transmitted from one guinea pig to another by certain species of mosquitoes. Isolated cases of human beings dying of encephalitis in areas where the disease is prevalent have been mentioned by Meyer and Da Fano and Ingleby. That the virus of equine encephalomyelitis was the etiologic agent in these cases was not proved by immunological experiments.

During the summer of 1938 an epidemic of equine encephalomyelitis occurred throughout various sections of New England, principally in Rhode Island and Massachusetts. Fothergill, Dingle, Farber and Connerly reported a case in a seven-year-old boy who died of a disease affecting the central nervous system. The virus which was recovered from the brain of the child was shown by immunological experiments to be identical with that found in the Eastern type of equine encephalomyelitis. This, therefore, is the first case of this disease in a human being to be thus proved.

Later in 1938 Wesselhoeft, Smith and Branch succeeded in isolating the virus of the Eastern strain of equine encephalomyelitis from the brains of four children. Meyer and Wesselhoeft, Smith and Branch have reported adult cases without immunological confirmation. Eklund and Blumstein reported six cases of encephalitis in farmers in the Middle West where equine encephalomyelitis was prevalent. Blood serum from one of these men was capable of neutralizing the virus of the Western strain of equine encephalomyelitis.—James C. McAdams, M.D., and Joseph E. Porter, M.D., Fall River, Mass.; New Eng. Jr. of Med., Vol. 221, No. 5, August 3, 1939.

Allergy and Nutrition

JONATHAN FORMAN, M.D.

THE allergic state imposes definite impairments upon the growth, development, and nutritional condition of its victim. It is all the more important to secure and maintain a good state of nutrition in the person with an allergic constitution (atopic individual) because his atopy is in itself a congenital impairment from which he can never escape.

The realization that sensitization to certain food substances is an actual immuniological state and a very real clinical problem has come upon us so fast that we have not always kept our feet on the ground in matters of diet. Too often, when we have found that the exhibition in the menu of a certain food has reproduced the allergic manifestations, we have been content to forbid that food and have not taken the pains to see to it that an equally good food has been substituted in its place. Then too, we are now finding out that the eating of such foods may register in a sub-clinical state which will later, sometimes after the patient has left our care, manifest itself as a definite impairment in growth, development, and general bodily health. It is therefore of the greatest importance that the growing child not only has a substitute for every food which is withdrawn, but that he does not eat and does not return to his menu those foods to which he has been proven to be sensitive even though such an exhibition of the foodstuff does not reproduce the symptoms for which he came to us. In the past, we have been delighted if we were able to influence favorably an eczema or an asthma by an elimination diet. Now we are finding out that this is only a part of the story. Such children may not grow as normal children do.

Every child under allergic management should be carefully watched for these things. A chart showing the height-age and the weight-age relationships will help a good deal in this work. In children under six years of age X-ray pictures of the lower ends of the tibia and the radius will often present "scorings" which serve to call our attention to the damage that a sub-clinical allergy is doing to the growth of the child. These need not be taken oftener than once every three months. They will also, of course, show the effects of clinical allergies as well. They should be taken regularly four times a year until the sixth birthday. It should be clear from what has been said above that these are not used to diagnose the presence of an allergy but rather a growth impairing factor such as starvation, dehydration, acute infection, deficiency disease, or *allergy*.

Todd and his associates have shown that allergic edema of the nose and its resulting obstruction is accompanied by septal deviation and underdevelopment of the sinuses. This shortens the face vertically and diminishes its projection forward. In this way is produced the narrow pinched nose and the constricted upper dental arch with its subsequently badly placed teeth. This type of face is often ascribed to the adenoids since these children always present an overgrowth of the nasal lymphoid tissue and hypertrophy of the tonsils.

It is now a commonly recognized principle that the allergic manifestations to foods are much more easily reproduced by feeding the food than they are cured by its withdrawal. We are now coming to see that in such cases we have an *individual* to deal with whose health and nutrition has been interfered with by allergy. The growth impairment and deficiencies often affect adversely the various ductless glands, so that once the offenders are identified, we still have a major problem in nutrition to solve. Hence it is always important to apply with all the skill which we possess the symptomatic remedies which are indicated and in the meantime to do all in our power to promote proper nutrition. In our opinion, this is the real explanation why skin tests and the subsequent elimination diets often do not cure the trouble for which the patient came. When, however, they are combined with good local treatment, proper tonics, and a good nourishing diet, they do what is expected of them in the majority of instances.

One of a series of editorial summaries on the management of certain diseases.

Recovery From Tuberculosis

Much has been said and written of late years as to the relative value of the early diagnosis of pulmonary tuberculosis, but it is no less important to be sure by reliable tests that the disease is arrested. Temperature, pulse-rate, blood sedimentation and X-rays should all be utilized in coming to a decision and after there is no further progression, time should be given for the healing of the existing pathological process. Only then can the patient be assured that recovery has taken place and that recurrence is unlikely under the ordinary stresses of life.—Green, J. W., Med. Bull. Vet. Adm., Jan., 1936.

Case Record Presenting Clinical Problems

A 31-Year-Old Man With History of Rheumatic Fever and Heart Trouble Who Is Seen Because of Fever, Joint Pains, and Headache

HARRY L. REINHART, M.D.

A 31-year-old white man entered the hospital complaining of severe joint pains and an intense headache. He had "heart trouble" at 11 years of age, and since then has always been dyspneic even upon the slightest exertion. His health has never been good, although he had few definite illnesses or complaints. Three years ago he was confined to bed for three weeks because of heart trouble.

Four months before admission he developed intermittent mild generalized muscle and joint pains and malaise, which gradually became continuous. He has also had anorexia and night sweats during the past month. Two weeks before admission he felt "stiff all over" and complained especially of tenderness in the right ankle and knee. He visited his family physician and a blood culture was taken, which revealed a slight growth of hemolytic streptococci. During the past two weeks he has had one joint after another progressively involved. Two days before admission he had a severe epigastric pain and one day later developed an intense headache which has persisted constantly. He has lost 22 pounds in weight during his present illness.

Past history: He had rheumatic fever, measles, chicken pox, and whooping cough. Five years ago his tonsils and adenoids were removed and one month before admission three teeth were extracted.

Physical examination reveals a well developed and well nourished white male, lying quietly in bed complaining of severe headache; his temperature is 100°, pulse 88, respiration 20. His skin is moist, of normal color, and the nails are not remarkable. Opthalmoscopic examination is negative. The breath is fetid, the tongue is coated, and the pharynx is reddened but free from any exudate. The heart impulse is forceful and the apical impulse extends 10 cm. to the left of the sternum in the fifth interspace. A loud, rough, systolic murmur is heard over the entire precordium and is transmitted into the axilla. Examination of the lungs reveals nothing significantly abnormal. The abdomen is not tender. The joints of the extremities present no noteworthy pathology despite the history suggestive of recent rheumatic involvement. The reflexes are normal.

Hospital Course: His clinical course was gradually but steadily downhill; the headache was constant, increased in severity and be became irrational and stuporous and died during the sixteenth hospital day. During the first three days his temperature was of a septic type, ranging between 97.2° and 103.8°, with intermittent chills and fever. The temperature had subsided to normal by the sixth day with a corresponding diminution in the pulse rate from 108 per minute to 80 per minute, although at this time he was somewhat irrational, stuporous, and moribund. On the eighth day rigidity of the neck, absent abdominal reflexes, petechial hemorrhages over the anterior surface of the right arm, and a very tender palpable spleen were noted. During the following days the temperature and pulse steadily rose as the patient become more restless, irrational, and finally delirious.

He was never fully relieved of his intense headaches. A spinal tap on the day of admission revealed a cloudy fluid under 240 mm. of H_2O pressure with a normal reaction to the Queckenstedt's test. Daily spinal decompressions were performed, and on the eleventh day an indwelling catheter was inserted into the spinal canal in the lumbar region. Clyses were given daily in an effort to establish drainage of the spinal fluid. This was only temporarily successful as the catheter was dislodged and it was not reinserted. In an effort to keep the patient comfortable paralydehyde, morphine, and pantopon were used. His exodus was gradual, the patient being in a deep stupor, and with terminal signs of coarse rales in the lungs accompanied by a temperature of 103°, pulse 130 per minute and respirations of 45 per minute.

Laboratory Data: Blood Count—Hb. 90 per cent (13 grams); R.B.C. 4,360,000 per cmm.; W.B.C. 12,700 per cmm. Differential Count—Segmented polymorphonuclear leucocytes 73 per cent; non-segmented polymorphonuclear leucocytes 15 per cent; lymphocytes 9 per cent; monocytes 3 per cent. Several subsequent blood counts revealed no significant deviation from this pattern. The leucocytosis ranged between 11,000 per cmm. and 18,250 per cmm. The total erythrocyte count remained around 4,000,000 and the hemoglobin about 13 grams. Urine—A trace of albumin and a moderate number of finely granular casts were noted intermittently. Spinal fluid—240 mm. of H_2O pressure; the fluid was cloudy; the erythrocyte count was 100 per cu. mm.; the leucocyte count was 5600 per cu. mm. The differential count of the spinal fluid revealed 93 per cent polymorphonuclear leucocytes and 7 per cent lymphocytes. Sugar 31.1 mgm. per 100 cc. The colloidal gold reaction was 4444445422; spinal fluid chloride was 556 mgm. per 100 cc.; Smears were negative for all organisms including tubercle bacilli. No growth was obtained from cultures of spinal fluid, on blood agar or Petroff's media. Subsequent spinal fluid examinations revealed an increasing total protein content to a maximum of 215 mgms. per 100 cc. and a decreasing sugar content to practically an absence of sugar. Blood cultures were repeatedly negative while the patient was alive. Cultures from the brain at autopsy revealed a growth of streptococci, hemolytic and non-hemolytic, after three days incubation. The electrocardiograph revealed no significant evidence of myocardial disease.

Dr. S. A. Hatfield:

In reviewing the history, physical examinations and laboratory findings of this patient, one is impressed with the following outstanding facts:

(1) "Heart trouble" dating back to the age of 11, since which time he has had but little if any

This is the forty-second of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

cardiac reserve, as manifested by the fact that he has always been dyspneic on slight exertion.

(2) There is a history of a period of cardiac decompensation three years ago confining him to bed for a period of three weeks.

(3) Four months before admission he developed intermittent mild generalized muscular pain and malaise which gradually became continuous. This was followed by tenderness in right knee and ankle and subsequently, involvement of one joint after another. At this time a positive hemolytic streptococcic blood culture was obtained.

(4) There is a history of an acute episode immediately preceding entrance to the hospital characterized by a severe epigastric pain and followed by an acute headache which became more severe and has persisted throughout the course of his illness.

(5) The outstanding physical findings at the time of admission were those relative to the heart. These findings are classical for rheumatic mitral disease with an insufficiency.

(6) The outstanding points noted in the hospital course are: septic temperature, chills and fever, rigidity of neck, stupor, absent abdominal reflexes, a palpable tender spleen and petechial manifestations. The terminal findings would direct one's attention to the central nervous system.

From the clinical side, one would naturally want to set up a provisional diagnosis of a subacute bacterial endocarditis and defend such a diagnosis against other possibilities. The rheumatic heart, followed by an acute episode as described, with the associated embolic manifestations may logically explain the terminal cerebral symptoms. Occasionally an acute rheumatic process is seen in the brain characterized by the typical vascular and peri-vascular lesions, which are not unlike those of epidemic encephalitis. In fact the clinical picture may closely simulate that of an epidemic encephalitis. The cerebral manifestations are headache, extreme restlessness, delirium and frequently coma. There may be convulsions and occasionally a marked hyperpyrexia. This symptom complex is rarely seen in childhood. However, in this patient, the septic picture and spinal fluid findings would suggest septic embolic infarctions with a subsequent meningitis to be the more likely course of events.

Other etiological possibilities such as tuberculosis, influenza and pneumococcus meningitis have been fairly well ruled out of the picture. This is a most interesting case presentation from the standpoint of differential diagnosis. Clinically I would defend a subacute bacterial endocarditis with cerebral embolic manifestations, leaving it to the pathologist with his autopsy findings to prove or disprove it.

Dr. H. L. Reinhart:

Anatomic Diagnosis

(1) Acute ulcerative mitral valvulitis superimposed on a chronic rheumatic mitral valvulitis. (2) Acute purulent basilar meningitis. (3) Multiple acute embolic abscesses of brain. (4) Acute bilateral lobular pneumonia. (5) Acute serofibrinous pericarditis. (6) Acute toxic splenditis. (7) Septicemia, hemolytic streptococcus.

Microscopic examination confirmed the anatomic diagnosis. The characteristic histo-pathological reaction of rheumatic fever, including Aschoff bodies was present in the heart and in addition an acute rheumatic pericholecystitis with typical Aschoff bodies was demonstrable. Although acute rheumatic fever characteristically and not infrequently produces pancarditis, pleuritis, synovitis, subcutaneous rheumatic nodules, meningoencephalitis, panarteritis of the arteries of lungs, kidneys, pancreas and other viscera, a rheumatic peritonitis is not common. The microscopic picture of the acute rheumatic pericholecystitis, which essentially is an involvement of the subperitoneal connective tissue of the gallbladder, was identical in character with that in the heart.

Although numerous cultures of blood and spinal fluid were made during the clinical course of this patient, no organisms were recovered. These results are not unusual in cases of acute rheumatic fever or even subacute bacterial endocarditis and constitute an unsatisfactory but circumstantial evidence of an acute rheumatic fever or a complicating subacute bacterial endocarditis. Cultures from the brain taken at autopsy revealed a scanty growth of slightly hemolytic streptococci on blood agar after three days incubation. This does not in itself constitute evidence of rheumatic fever nor necessarily support the streptococcic origin of rheumatic fever.

Clinically as well as anatomically the cerebral lesions present an interesting as well as perplexing problem in this case. The rheumatic meningoencephalitis with clinical manifestations of chorea is well known. However, in such cases the inflammatory reactions are not specific for rheumatic fever or chorea and these reactions are not usually so intense nor so focal in character. In this case there was a moderate greenish exudate involving the leptomeninges at the base of the brain, a rather massive exudate of similar character in the left lateral ventricle and two small necrotic areas less than an inch in diameter in the cerebral hemispheres. The exudate was composed principally of lymphocytes and in addition there were numerous monocytes and polymorphonuclear leucocytes present. In general the anatomical pattern would seem to conform more to the type produced by emboli than to the type anticipated in an uncomplicated acute rheumatic meningo-encephalitis. The presence of an acute ulcerative mitral valvulitis provides a logical source for such an assumption. The anatomical evidence seems to support an acute exacerbation or recrudescence of rheumatic fever with ulcerative endocarditis, embolic cerebral infarctions and a terminal streptococcic septicemia.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

PHYSICIAN'S RELATIONSHIP TO THE PATIENT

THREE reasons account for the self-discharge of patients not receiving collapse surgery: (1) a feeling of well-being, (2) conditions at home requiring their return to work, (3) the patient not sufficiently aware of the importance of bed rest in the treatment of tuberculosis and not educated properly as to the advantages of the sanatorium or hospital.

Many patients admitted to the sanatorium are not acutely ill and except for a slight cough or a sudden hemoptysis were not aware that they were ill. Mass tuberculin testing has discovered many cases of tuberculosis that are entirely asymptomatic. The news is generally received with some degree of shock, especially by those who think of tuberculosis as "consumption" and who are not aware of what can be done therapeutically. The way a person reacts to the knowledge that he has tuberculosis and will have to remain in a sanatorium for a long time depends on two factors: (1) his inherent characteristics, whether his tendency is toward an introvert or extrovert type, and (2) his station in life at the moment and his responsibilities, such as the support of a family.

EMOTIONAL TYPES

Extroversion may be defined as the turning of an interest outward toward some object. Introversion is the contemplation of one's own thoughts and feelings. Tuberculosis patients can hardly be rigidly classified into these two groups but in each individual is the tendency to lean toward one or the other and when an individual develops tuberculosis that tendency becomes more manifest. The neurasthenic manifestations encountered in tuberculosis patients are not specific but are frequently seen in individuals with any protracted illness. The physician dealing with tuberculous patients must adjust and adapt them to their illness as close to the point of contentment as is possible, instilling within them the hope and certainty that they will soon recover and return to their former usefulness to society. The patient confined to a bed-rest regimen for a number of months must be made to believe in the need for such treatment.

The extrovert is characteristically carefree and unconcerned about his condition. The problem that confronts the physician is to gain the confidence of this patient and to explain the need for prolonged treatment if he is to make satisfactory progress. Occasionally one will encounter a patient who does not adequately appreciate the necessity of intensive treatment. Here one must be frankly outspoken and attempt to show what may happen if he fails to heed the physician's advice. The patient must be made to realize that he is a sick person in spite of his apparent well-being. He must be convinced of the fact that tuberculosis, when discovered early, may be easily controlled, whereas, when the disease is of a more advanced type, it is more difficult to obtain a satisfactory result. In order to obtain the full cooperation of the patient, it is essential that he be advised concerning the development and progress of the disease through the medium of education. The physician in charge must make an indelible impression on his patient.

It is with the introvert that we must use the greatest of discretion. He has kept his troubles to himself, for his best defense has been to keep his troubles hidden. It is this type of individual that should be prevailed upon to share his innermost thoughts with the physician. He must not be allowed to become depressed, for a happy patient with a happy, healthy state of mind is a most desirable asset in fighting a chronic disease such as tuberculosis. On the other hand, the practice of minimizing a patient's lesion, such as diagnosing an infiltrate as a "bronchitis" so as to avoid any "embarrassment" to the patient, is to be condemned. Too often patients are seen who state that their physician, several months prior to admission, told them that they had a "little bronchitis" or a "tiny spot on the lung" and advised only a couple of weeks' rest in bed. However, in a certain few select cases it may be perfectly justifiable to minimize somewhat the extent of the process. Those patients who are apprehensive and worried about themselves must be reassured and convinced that their trouble is not too far advanced and that with time they will recover. An attitude of optimism must be assumed by the doctor and imbued in the patient. The mere mention of the word "cavity" may cause them to become panicky and apprehensive.

WINNING CONFIDENCE

When making staff rounds it is best not to discuss the case in front of the patient, except in the form of encouragement. The patient will listen intently and will invariably misinterpret every statement. The physician should devote as much time as possible to obtaining a sympathetic understanding with the patient and discuss at length any problem that may be brought up, no matter how trivial it may seem. He should be encouraged to keep interested in the news of the

day. The widespread use of the radio is endorsed; its effects on the well-being of the patients have been so encouraging that in the new Hudson County Tuberculosis Hospital, every bed is supplied with an individual ear-set, so that a patient may have the choice of listening to one of four different programs without in any way interfering with the other patients in the ward.

When pneumothorax is attempted and fails, the patient will become despondent, feeling that his only hope for recovery is lost. To obviate this apparent setback one must explain that pneumothorax is merely an adjunct in the treatment; that the patient will improve with bed rest alone, but that if pneumothorax is successful it will help rest the lung a little more and tend to hasten recovery.

One has to contend with patients wanting to be discharged because they feel they can continue bed rest at home. This is not true. The majority of those who sign a release become careless and soon have to return because of reactivation of the lesion. With this group the physician must stress the dangers involved, frankly and outspokenly. Citing as an instance an individual, known to the patient, who having refused advice has had to return with an advanced lesion, often helps him to comprehend the significance of his intentions.

WHAT REST MEANS

One thing must be emphasized to all tuberculous patients, that rest means not only physical rest but also mental rest. The object of physical rest is to diminish the work of the lungs by diminishing the number and extent of the respiratory excursions. Yet, what good is such physical rest if the patient maintains a state of high nervous tension as seen in the neurasthenic type of individual? It is not infrequently noted that patients with extensive pulmonary involvement who are cheerful and mentally stable show a favorable progress.

The tuberculous person must be shielded from the cares and responsibilities of home and business. Friends and members of the family must be cautioned against bringing any news to the patient which may in any way disturb him. For that reason, sanatorium care for the patient is the desirable thing, whenever feasible, for here the individual is more or less isolated from home influences, which, although well meant, are not always to the patient's best interests and, in addition, he is under constant supervision with the knowledge that he is in the same hospital with a number of others similarly afflicted and all having the same goal. Also, from a public health standpoint, his chances of spreading his infection are minimized.—Alfred L. Kruger, M.D., Jour. of Amer. Med. Assn., Vol. 112, No. 21, May 27, 1939.

Nature of Obesity in Endocrine Disorders

1. Obesity can result only from taking in more energy components than are expended.

2. Obesity associated with endocrine disorders yields to dietary measures in the same manner as that without accompanying evidence of endocrine imbalance. Indeed it can almost be said that it will not yield to anything but dietary control.

3. Obesity in endocrine disorders is not always secondary; it and the endocrine symptoms may both be due to the ingestion of a faulty metabolic mixture in childhood or at puberty—physiologically impressionable ages.

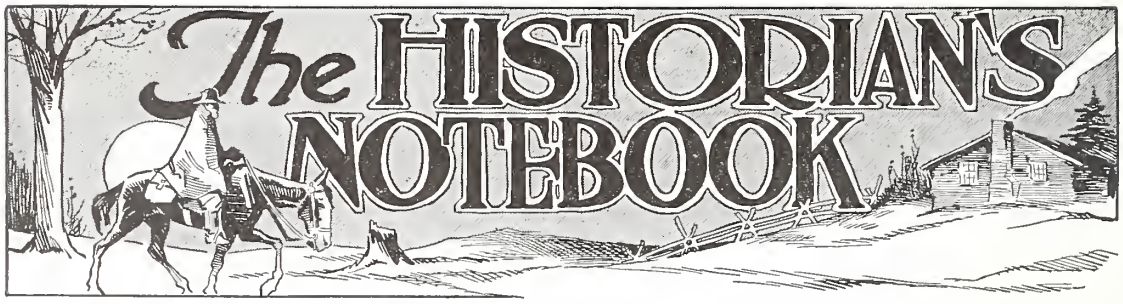
4. Endocrine imbalance when primary can cause obesity only by decreased energy expenditure, or increased energy intake because of abnormalities of appetite.

5. Abnormalities of appetite might well result in many cases also from faulty habits of eating, or a hereditary tendency as suggested by Wilder.

6. Whatever the background of the abnormal appetite leading to overeating, which can be the only cause of obesity, although increasing the difficulty of dieting, it does not, even when a hereditary tendency, justify the continuation of an unwholesome practice.—Frank A. Evans, M.D., Pittsburgh; Pa. Med. Jr., Vol. 42, No. 10, July, 1939.

Acute Onset of Central Nervous System Syphilis After a Spinal Anesthesia

Anesthetists and surgeons have, we believe, considered latent syphilis a mild contra-indication to the use of spinal anesthesia. Possibly this is more because of the medico-legal aspects than from any conviction that such procedure will cause harm to their patients. Certainly the number of recorded cases in which a flare-up of cerebro-spinal syphilis has followed a spinal anesthesia are far too few to draw any definite conclusions. However, the possible causal relationship is suggested by the three cases reported from the literature and by our own case. We hope that this communication will bring the attention of others to this possible relationship and thereby increase the number of reported cases. We realize that our data is insufficient, that the operation itself or merely the spinal puncture and not the anesthetic might have initiated the onset of cerebrospinal lues. Nevertheless if this report draws attention to the diagnosis of cerebro-spinal syphilis as a possible complication following spinal anesthesia in a patient with latent syphilis it will have fulfilled its purpose.—Wm. J. Snyder, Jr., M.D. and Monica N. Snyder, M.D., F.I.C.A., Hollywood, Calif.; Anes. and Anal. Vol. 18, No. 4, July-August, 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early History of Medicine in Butler County

PART III.

ALTA HARVEY HEISER

THE board of health appointed during the 1833 cholera epidemic in Hamilton, did not succeed in keeping the town clean, but it did reduce unsanitary conditions. Summer was the dreaded season on account of cholera. Hamilton escaped a serious epidemic in 1834, although the disease was raging so in nearby Oxford that the students at Miami University who did not live in the village quit their classes and left for home.

During epidemics there was urgent need of burying the dead as soon as possible. However, in early Hamilton and elsewhere this practice prevailed, no matter what had been the cause of death. Sometimes the burial took place on the same day the death occurred, if the grave digger could be located and a carpenter found to make the coffin in time. Often it was growing dusk before the little procession moved down the streets of Hamilton or Rossville to one or the other graveyard.

More often the funeral was not held until the second day, which allowed time to have invitations printed and carried to friends of the deceased. Dr. Daniel Millikin was the first to express his disapproval of this unseemly haste. The nearest relatives or friends of the dead made all the preparations for burial, but there were coming into practice methods which did away with the necessity of immediate or what Doctor Millikin called premature burial. His foremost reason for delaying funerals was that often there was a chance that the "departed" would revive. Doctor Millikin was supported in the matter by Doctor Rigdon, Doctor McFarland, Doctor Littell, Doctor Riddell, Doctor Hittel and Doctor Falconer.

FINANCIAL INSECURITY

It has been stated that Dr. Cyrus Falconer began his medical practice in Hamilton in 1832 and that in 1834 he was taken into partnership by Dr. Loammi Rigdon, one of the best in the profession. Considering that Doctor Falconer practiced in Hamilton for 63 years, it would be fine if it could be stated that he was a native Hamiltonian. However, he was born in Pennsylvania and was two years of age when his parents came to Hamilton in 1812.

At the time that Doctor Falconer began his Hamilton practice there was great financial insecurity all over the country. By 1837 matters became so bad that the western trek took a fresh impetus and many left for Iowa to start anew. Young Falconer felt that he would have better opportunities elsewhere, but was not one to take a step not carefully planned. He had saved enough money to enable him to do a little investigating, rather than to rush westward to he knew not what. He arranged to spend the winter of 1837-1838 in search of a good location. This he confidently expected to find, and he severed his connection with Doctor Rigdon. Moreover, he wrote a touching poem on "Leaving Hamilton," which found its way into print.

BUILT NEW HOME

It would be of great interest to know just why the doctor returned to Hamilton after visiting Illinois, Iowa and even Texas. It is not hard to jump at conclusions, and it is rather evident that the girl to whom he was engaged helped him

The Author

● **Mrs. Heiser, Hamilton, Ohio, is a member of the Ohio State Archaeological and Historical Society; the Butler County Historical Society; author of a series of historical sketches of Butler County, and reprinted herewith through the courtesy of the Hamilton Journal-News.**

make his decision. At any rate, in March of 1838 he opened an office on High street "one door east of Krug's saddlery and two doors west of Millikin and Bebb." At this time, John M. Millikin and William Bebb had their law office on the north side of High street east of the alley half way between Second and Third streets.

There is a special significance connected with Doctor Falconer's selection of a location. John Woods owned the west half of the block between Second and Third streets. Among his private papers are found contracts with carpenters and other workmen, which show that during the spring and summer of 1839 he had a house built next to the alley and apparently just back of the little office building occupied by Doctor Falconer. In October of 1839, the doctor moved into this new house with his bride who was Mary, the eldest daughter of Mr. Woods. And here he lived for many years, carrying on his profession in a manner to gain for himself the reputation of being 50 years ahead of his time—a man who would have made a great name for himself had he had better opportunities. But he settled in the niche he made for himself in Hamilton and stood as a foremost citizen until the time of his death in 1895.

ATTITUDE ON LIQUOR

An outstanding feature of Doctor Falconer's life, and one which caused him to have strong enemies was his attitude towards the liquor question. It is possible that, as a boy, he may have learned some of the unpleasant aspects of drinking at the Falconer house, even though it was a step above the ordinary taverns of the day. The medical lectures he attended may have pointed out the injurious effects of strong drink. However that may be, as a very young man Doctor Falconer began his temperance lectures, almost before people in general had "set their faces against" the prevalent use of corn whiskey. When the temperance move swept the country, he took a leading part and did a lot towards "keeping the Doggeries, high and low, very anxious."

Doctor Mallory paid high tribute to Doctor Falconer for his "proverbial kindness to the younger members of the profession." This kindness included cautioning them against intemperance. As late as 1890, it is told of him that he called on a young doctor whose parents and grandparents he had known. This fact, he said, gave him the right to warn the younger man to neither drink nor smoke.

SERIOUS HEALTH PROBLEMS

The people of Hamilton always were resentful about the many "exaggerated reports" concerning unhealthful conditions. In 1844, the paper admitted that there was more than usual sickness, but it was "accidental and varied," and not due to unsanitary conditions. There were cases of consumption, to be sure, but consumption was everywhere. Hops and boneset were recommended for bringing relief to lung sufferers. One day there were five funerals, but that was all for the entire week. It was "all stuff," the report that there were six or seven funerals a day. Mt. Pleasant, remarkable for its healthful situation, had more sickness pro rata than had Hamilton.

Perhaps this editorial was responsible for the people of Mt. Pleasant changing the name of their village to Mt. Healthy.

Yet conditions in Hamilton were unhealthful and the citizens knew it. But sickness was not confined to the poorer classes. Much concern was expressed when a prominent business man was taken with the chills—a friend wrote hoping that he would soon shake them off!

ORDERED CLEAN-UP

On October 3, 1847, handbills were printed and distributed for the purpose of calling attention to an ordinance for the abatement of nuisances and for cleaning up the town. Three hundred dollars was appropriated for that purpose. Dr. Loammi Rigdon, Dr. Cyrus Falconer, Dr. William Huber and Dr. Andrew Campbell constituted a board of health, and they ordered "all houses, out-houses, cellars and alleys to be cleared of manure and filth within 10 days!" Dead animals were ordered buried outside of town within 36 hours, under penalty of a fine ranging from two to ten dollars. One to ten dollars was the amount set as a fine for having objectionable "garden houses." It is hard to tell just how this worked, as the next item in the ordinance mentioned a fine of from five to ten dollars if vaults were not provided.

During the summer of 1849, William B. VanHook superintended the construction of "a New Hospital at the foot of Poor House hill." A fine spring of water was close by, and a bathing apparatus as well as a furnace was installed. The Poor House was overcrowded and—cholera had come again to Hamilton.

The board of health had published a long article giving rules for escaping it and for relieving from its horrors the ones who had it. The directions given for making a cholera syrup indicate that it must have been about as distressing to take as it was to have the disease. As this attacked mostly the foreign element, the cholera circulars were also printed in German.

The streets were sprinkled with lime and the citizens were asked to use it freely about their premises, to keep their homes well ventilated, to dress warm and to watch their diet. Fruit had long been considered a cause of cholera. Watermelons were called cholera bombshells. A bombshell indeed did it prove when "Dr. Alcott of near Boston" said that, next to bread, fruit was the

great staple of human diet and should be eaten to prevent cholera.

EPIDEMIC WIDESPREAD

The epidemic was widespread. In Cincinnati the deaths ran as high as 184 in one day—during the summer months there was one death to every 15 inhabitants. Omnibus connection between Cincinnati and Hamilton was discontinued. The number of deaths in Hamilton was kept at a low figure. Eight in one week for both Hamilton and Rossville was the largest number reported. But many were sick and the well were too panicky to care for them. This was urged as a sacred duty and committees were appointed to aid the sufferers in each block.

Naturally, there were those who objected to the measures used by the board of health. For those who had time to read, the paper gave a long drawn out exchange of letters sent in by "An Observer" and "A Citizen." It was guessed that the observer was a lawyer and the citizen a doctor. Perhaps this was the start of the consternation caused by Doctor Falconer in his open windows campaign.

In the summer of 1850 the cholera returned with graver results than those of 1849. The last Saturday in July was described as a solemn day in Hamilton. "Seven corpses which a few hours before were happy in life" were carried slowly through the silent streets. Business was forgotten— people could think of nothing but the fearful scourge. It finally ran its course, but the brave exertions of doctors and citizens in general were not soon forgotten.

SECOND DISTRICT MEDICAL SOCIETY FORMED 1837

The Second District Medical Society, organized in 1824, was the only body of its kind in Hamilton until 1837. The disruptions and conflicting opinions of local doctors caused jealousies which greatly weakened the diginity of the profession and the confidence of the public. It was hoped that conditions could be improved by forming a purely local society, but doctors from the surrounding country were asked to cooperate. Thus the Butler County Medical Society was organized in 1837. Dr. Daniel Millikin was chosen for president and Dr. G. W. Riddell was secretary.

A meeting of the society was called for June, 1837, when the members adopted a code of ethics by which they were pledged to stand. To a great extent this same code is used today, but it was so new at that time that a brief resume of its provisions may be found of interest.

CODE OF ETHICS

It was the duty of all physicians to treat their patients with steadiness, tenderness and humanity, making allowance for mental weaknesses due to disease. Cases must be treated with secrecy and delicacy. Doctors must observe strict temperance. They must not use "unfavorable prognostications," yet must let the relatives know how things stood. If a second doctor was called, the doctor first in attendance should give the directions agreed upon. A doctor called for consultation must not pay a second visit of his own accord, nor should he show a desire to continue when called in the absence of the family doctor. Lack of a diploma should not exclude practitioners of experience and sound judgment from the respect and fellowship of the "regulars." When a consultation of several doctors was called, all should be punctual, but the first to arrive must not proceed unless in an emergency. Attendance on members of a doctor's family should be gratuitous. (If the patients were able and willing to pay, however, the attending physician might accept!) If the patient of a dismissed doctor died, the second doctor must not say that this would not have happened had be been called sooner. In case of a disagreement between two doctors the point should be settled by several. Doctors should use indulgence towards patients who insist on using nostrums, yet should consider it a sacred duty to sound warnings against empirics. A retired or wealthy doctor should refuse gratuitous advice except in cases of emergency or poverty, since this would deprive the active industry of its proper reward. Doctors should help fortify the resolutions of those suffering from intemperance. They should "remember the Sabbath to keep it holy," and pay their visits before, after or during intervals in public worship.

The last provision of the code made it rather hard on both doctors and patients. Public worship began early and lasted long. Folks in the country often left their homes at daylight to arrive in time, brought their noonday meal along and, when the afternoon service was over, were late in getting home to do the evening chores.

On January 11, 1849, action was taken to revive a medical society. Dr. Samuel Braden, secretary of the Hamilton Medical Society, gave notice that the first regular meeting would be held on February 7, at 10 A.M., at the Hamilton Hotel. Dr. Loammi Rigdon was scheduled for the inaugural address, and all the physicians of Butler County were invited to attend. Dr. W. T. Going, who became Dr. Rigdon's partner, with their office next to the Rigdon residence at Second and Ludlow, in 1852, was made secretary of the organization, which met at Doctor Falconer's office on the seventh of each month during that year.

A Butler County Medical Society was formed in 1851. On January 4, 1854, the annual meeting was held at the home of Dr. W. H. Scobey, who invited the members to "partake of a New Year's dinner at 12:30 o'clock."

Program for Postgraduate Lectures in Five Regions Is Completed; Dates of Opening Sessions; Other Data

ARRANGEMENTS have been completed for the 1939 series of Ohio State Medical Association Regional Postgraduate Lectures, the second course of a five-year educational program presented by the Association for its members.

Opening sessions will be held in five regions, comprising 78 counties, on the following dates: Wednesday evening, September 20, Region C, Mansfield; Thursday evening, September 28—Regions A, B, D, and E—Findlay, Chillicothe, Cambridge and Troy.

Six sessions, each consisting of two 45-minute lectures, will be held in each region. All meetings will begin at 7 o'clock. A discussion period will be held at the close of each session. There will be no registration fee.

All members of the State Association are eligible to attend any of the meetings. Lecturers have been selected by the Sub-Committee on Regional Postgraduate Lectures on the basis of their clinical experience and ability to speak. They have been instructed to make their talks practical, with emphasis on diagnosis and methods of treatment. Each lecturer has been furnished with an outline of what the sub-committee would like to have his talk cover.

Outlines for the 12 lectures, names of the speakers, dates the subject will be presented in each region, the counties comprising each region and names of regional chairmen, follow.

* * * *

1. Bleeding From the Uterus

Prompt recognition of the cause of abnormal uterine bleeding, particularly after the menopause, may mean the difference between life or death for the patient. Possible causes enumerated briefly; endocrine imbalance stressed; more important ones explained in detail. Appropriate emergency measures suggested and treatment thoroughly discussed. Practical talk based on citation of actual clinical cases with description of methods employed.

Findlay—September 28, Dr. Edwin J. Stedem, Columbus.

Chillicothe—September 28, Dr. Robert L. Faulkner, Cleveland.

Mansfield—October 4, Dr. Joseph D. Heiman, Cincinnati.

Cambridge—November 9, Dr. Stedem.

Troy—October 12, Dr. Stedem.

2. What Shall We Do for the Pregnant Woman With Syphilis?

How to discover the cases. Absolute need for blood tests as an early routine measure. Treatment should be given primarily to insure a living and healthy baby. The prospects for accomplishing this. Pregnant women ordinarily tolerate anti-syphilitic treatment well. Typical treatment schedule. The aim should be to give maximum amount of treatment continuously, as long as compatible with mother's health. Necessary precautions. Danger signals. Statistical probabilities for securing (a) a living child, (b) a non-syphilitic child.

For pictures of speakers at opening sessions, see pages 982-983.

Defiance—October 12, Dr. John E. Rauschkolb, Cleveland.

Chillicothe—October 12, Dr. E. W. Netherton, Cleveland.

Mansfield—September 20, Dr. Harold N. Cole, Cleveland.

Cambridge—October 12, Dr. Louis J. Roth, Columbus.

Troy—October 26, Dr. Daniel J. Kindel, Cincinnati.

3. Obstetrics in the Home

Since the majority of babies are delivered in private homes, this question is one of

(Turn to page 984)

Speakers at Opening Sessions



Edwin J. Stedem, M.D.
Columbus

Dr. Stedem is a graduate of Western Reserve University School of Medicine, 1921; former resident surgeon and gynecologist, Lakeside Hospital, Cleveland; postgraduate study in Europe; instructor in surgery, Ohio State University College of Medicine; attending surgeon, Mt. Carmel Hospital, Columbus; director of gynecology, St. Francis Hospital, Columbus; member of the American College of Surgeons.



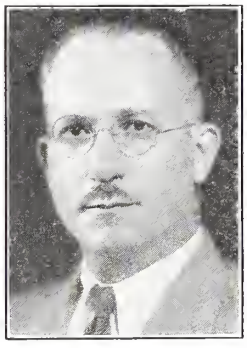
Harold N. Cole, M.D.
Cleveland

Dr. Cole is a graduate of Western Reserve University, School of Medicine, 1909; clinical professor of dermatology and syphilology, Western Reserve University; visiting dermatologist and syphilologist, Cleveland City and University Hospitals, Cleveland; member, Council on Pharmacy and Chemistry, American Medical Association; American Radium Society; and Surgeon General's Advisory Committee on Syphilis.



Robert L. Faulkner, M.D.
Cleveland

Dr. Faulkner is a graduate of Johns Hopkins University School of Medicine, 1923; assistant professor of gynecology, Western Reserve University School of Medicine; associate gynecologist, University Hospitals, Cleveland; and diplomate of the American Board of Obstetrics and Gynecology.



M. M. Zinninger, M.D.
Cincinnati

Dr. Zinninger is a graduate of Johns Hopkins University School of Medicine, 1921; assistant dean and associate professor of surgery at University of Cincinnati College of Medicine; diplomate of the American Board of Surgery; and member of Committee on Scientific Work, Ohio State Medical Association.



John A. Toomey, M.D.
Cleveland

Dr Toomey is a graduate of Western Reserve University School of Medicine, 1919; associate professor of pediatrics (contagious diseases), Western Reserve University School of Medicine; physician-in-charge, Contagious Disease Hospital, Cleveland; associate pediatrist (contagious diseases), University Hospitals, Cleveland; member, American Pediatric Society, American Academy of Pediatrics, Society for Experimental Biology and Medicine, American College of Physicians, Ohio Academy of Science, American Society of Bacteriology, American Association for the Advancement of Science, American Public Health Association; licentiate, American Board of Pediatrics.

Regional Postgraduate Lectures



Jonathan Forman, M.D.
Columbus

Dr. Forman is a graduate of Ohio State University College of Medicine, 1913; clinical instructor in allergy, Ohio State University College of Medicine; member of American Association of Anatomists, Ohio Society of Clinical Laboratory Diagnosis, American Association for the Study of Allergy, and diplomate of American Board of Internal Medicine; vice-president of Cleveland Allergy Society; past-president of Columbus Academy of Medicine; editor of *The Ohio State Medical Journal* and *The Bulletin of the Columbus Academy of Medicine.*



Frank E. Stevenson, M.D.
Cincinnati

Dr. Stevenson is a graduate of University of Cincinnati College of Medicine, 1923; associate professor of pediatrics, University of Cincinnati College of Medicine; chief clinician, Pediatric Clinic, Out-Patient Dispensary, and assistant director, Pediatric and Contagious Services, Cincinnati General Hospital; attending pediatrician, Children's Hospital; consultant in contagious diseases, Longview Hospital, Cincinnati; diplomate, American Board of Pediatrics.



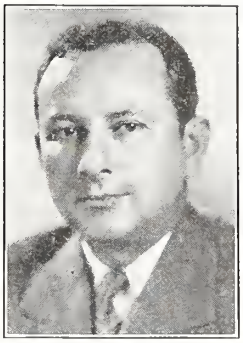
Roy W. Scott, M.D.
Cleveland

Dr. Scott is a graduate of Western Reserve University School of Medicine, 1913; professor of clinical medicine, Western Reserve University, School of Medicine; physician-in-chief, Cleveland City Hospital; member, Association of American Physicians, American Society for Clinical Research, board of directors, American Heart Association, American Physiological Society, Central Society for Clinical Research and American Society for Pharmacology and Experimental Therapeutics.



Mont R. Reid, M.D.
Cincinnati

Dr. Reid is a graduate of Johns Hopkins University School of Medicine, 1912; Christian R. Holmes professor of surgery at University of Cincinnati College of Medicine; director of surgical services, General and Children's Hospitals, Cincinnati; member, American Surgical Assn., Southern Surgical Assn., American College of Surgeons, and Society of Clinical Surgery; diplomate of American Board of Surgery; member, National Advisory Cancer Council.



John W. Holloway, M.D.
Cleveland

Dr. Holloway is a graduate of Western Reserve University School of Medicine, 1923; assistant clinical professor of surgery, Western Reserve University School of Medicine; associate surgeon, Lakeside Hospital, Cleveland; member of American College of Surgeons.

primary importance. Good technique can and should be carried out in homes even under the most adverse and unpromising conditions. Proof that it can be is in the records of home delivery services conducted under the auspices of medical schools in tenement districts in metropolitan centers of this state. Importance of proper prenatal examination and care is stressed. Hospitalization is desirable in cases known to be abnormal. Simple and inexpensive methods for attaining aseptic technique discussed in detail. Description of supplies and equipment used by speaker, how the "delivery room" is set up, and what he requires the family to provide. Illustrative cases. Necessary follow-up. The question of an assistant, and how solved. Emergencies which must be met.

Findlay—October 26, Dr. Marion E. Black, Cleveland.

Chillicothe—October 26, Dr. Glen K. Folger, Cleveland.

Mansfield—October 18, Dr. Charles W. Pavey, Columbus.

Cambridge—November 21, Dr. Pavey.

Troy—November 9, Dr. Ralph W. Eddy, Cincinnati.

4. Acute Surgical Conditions in Childhood

Family physician must be prepared to deal with many everyday surgical problems in this age group. Any hour may bring the demand to treat suppurative cervical glands, osteomyelitis, empyema of the chest, minor or serious injuries, or even a surgical abdominal condition. Factors in diagnosis and treatment which may differ from those in adults considered. Illustrative cases.

Defiance—November 9, Dr. M. Tischer Hoerner, Dayton.

Chillicothe—November 9, Dr. John W. Holloway, Cleveland.

Mansfield—November 1, Dr. L. L. Bigelow, Columbus.

Cambridge—September 28, Dr. Holloway.

Troy—November 21, Dr. Lloyd B. Johnston, Cincinnati.

5. Convulsions in Childhood

All convulsions in childhood are important and should lead to thorough search for causative factor which may be heredity, environment, congenital or acquired instability, metabolic disorders, rickets, tetany, acute infectious diseases (especially pertussis), genito-urinary, gastro-intestinal diseases and tumors. Grades of seizure from blue baby associated with breath-holding to actual seizures described. Phases of an attack; clonic and tonic; unconsciousness. Differential diagnosis as to causative factors, and from epilepsy, petit mal, narcolepsy, pyknolepsy. Reflex changes, pupils, squint, nystagmus, opisthotonos, superficial and deep reflexes. Treatment: emergency; planned—rest (psychic stimuli removed); diet and drugs. Prognosis: prevention, removal of causative factor; decreasing hyperirritability of the nervous system by drugs; building up the body resistance, etc.

Findlay—November 21, Dr. Elmer G. Horton, Columbus.

Chillicothe—November 21, Dr. Sterling H. Ashmun, Dayton.

Mansfield—December 6, Dr. Edward A. Wagner, Cincinnati.

Cambridge—October 26, Dr. James G. Kramer, Akron.

Troy—December 7, Dr. Robert A. Lyon, Cincinnati.

6. The Deformities of Poliomyelitis Must Be Prevented

Extreme importance of early recognition. Stages of the disease, preparalytic, paralytic, postparalytic. Treatment in abortive, preparalytic types. Treatment during paralytic stage; early manipulation vs. rest; convalescent human serum; special treatments, spinal drainage, etc.; orthopedic treatment; prevention of deformity; physiotherapy; home and hospital care.

Findlay—September 28, Dr. John A. Toomey, Cleveland.

Chillicothe—December 7, Dr. Frank E. Stevenson, Cincinnati.

Mansfield—November 15, Dr. Stevenson.

Cambridge—November 9, Dr. Toomey.

Troy—September 28, Dr. Stevenson.

7. Importance of Routine Rectal Examinations

Importance of anal and rectal examinations. Conditions often anatomically insignificant but functionally important which may be overlooked because of neglect of simply visual or digital examination, e.g., fecal ball. Types of patient in whom these often occur. Diagnosis of fistula in ano, fissures, various types of hemorrhoids, etc. Simplicity of speculum and sigmoidoscopic examination. Detailed technic of making examination. Important conditions (e.g., cancer) which may not be recognized early be-

cause of omission of proper local examination. Illustrative clinical cases. Usefulness and limitations of X-ray examinations of lower bowel.

Findlay—November 21, Dr. Chas. E. Howard, Cincinnati.

Chillicothe—November 21, Dr. Clayton C. Perry, Cleveland.

Mansfield—November 1, Dr. Paul J. Fuzy, Youngstown.

Cambridge—October 26, Dr. Perry.

Troy—December 7, Dr. W. W. Green, Toledo.

8. Helping the Public Reduce the Mortality of Acute Appendicitis

Although our knowledge of this disease has been definitely crystallized, its mortality continues to be too high. To protect the public as well as ourselves, we must teach our patients to avoid purges and cathartics in the presence of abdominal pain. Principles of diagnosis reviewed, including the use of the simpler laboratory procedures. Desirability of sharing responsibility in these cases wherever possible emphasized. Importance of early surgical aid. Illustrative clinical cases.

Defiance—December 7, Dr. R. S. Dinsmore, Cleveland.

Chillicothe—September 28, Dr. M. M. Zinninger, Cincinnati.

Mansfield—December 6, Dr. A. E. Brant, Youngstown.

Cambridge—October 12, Dr. Ralph M. Watkins, Cleveland.

Troy—October 12, Dr. Fred M. Douglass, Toledo.

9. Protecting the Heart of the Patient With High Blood Pressure

Hypertensive heart disease is an important cause of death. Sufferers from this condition belong to the age group in which disability or early death means much to their dependents. Keeping them in the best possible physical condition is a matter of vital economic importance. Brief remarks as to etiology of hypertension with reference to Goldblatt's work. The complete picture; effects on the heart and vascular system. How it leads anatomically to heart failure. Suggestions on prevention. Just what can and can not be done with medicines. How the patient can be educated to adopt the measures of hygenic living necessary to prolong life. Essential features of modern management stressed, and illustrative cases cited.

Defiance—October 12, Dr. H. M. Clodfelter, Columbus.

Chillicothe—October 12, Dr. Frank C. Clifford, Toledo.

Mansfield—October 18, Dr. Johnson McGuire, Cincinnati.

Cambridge—September 28, Dr. Roy W. Scott, Cleveland.

Troy—October 26, Dr. C. C. Sherburne, Columbus.

10. How To Handle the Patient With Asthma

"All that wheezes is not asthma." Hence, to help the asthmatic patient, classification is of extreme practical importance. The first step is to change the patient to an allergen-free environment. Simple methods for doing this described. Epinephrine, its uses and abuses. The dangers of morphine. The place of the iodides and their manner of administration. The use of liquids, feeding and glucose. The value of skin tests and clinical trial by exposure to suspected substances. Management by avoidance and hyposensitizing injections of proven offenders.

Findlay—October 26, Dr. L. E. Seyler, Dayton.

Chillicothe—October 26, Dr. Karl D. Figley, Toledo.

Mansfield—September 20, Dr. Jonathan Forman, Columbus.

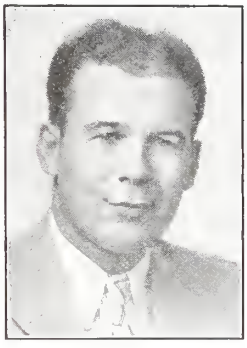
Cambridge—November 21, Dr. Roger O. Egeberg, Cleveland.

Troy—November 9, Dr. Milton B. Cohen, Cleveland.

11. Hints To the General Practitioner In the Handling of Acute Eye Conditions

Description of various acute eye conditions, with emphasis on those that can be treated by the general practitioner and those which require treatment by the opthalmologist. Subjects to be discussed: Acute conjunctivitis—recognition and differentiation from glaucoma and iritis; treatment. Foreign bodies—technic of removal from cornea; description of type of cases (intraocular) which must be sent to the specialist for immediate care; automobile accidents and the eye; consideration of injuries from glass, etc. Corneal ulcers—significance, recognition and treatment. Interstitial keratitis—how to recognize it; local and systemic treatment;

CHAIRMEN OF LOCAL COMMITTEES ON ARRANGEMENTS



L. H. Goodman, M.D.
Findlay



John U. Fauster, Jr., M.D.
Defiance



R. C. Bane, M.D.
Chillicothe



Mabel Emery, M.D.
Mansfield



O. Reed Jones, M.D.
Cambridge



Berton M. Hogle, M.D.
Troy

syphilitic cases often resistant even with specific treatment. Glaucoma—acute often marked by sudden onset with terrific pain, vascular reaction and dilation of pupil; prompt recognition important; differentiation from conjunctivitis and iritis; chronic glaucoma; failing vision without inflammatory symptoms or pain; avoid mydriatics. Iritis—recognition; possible causes; differentiation from acute conjunctivitis and iritis; treatment.

Defiance—December 7, Dr. John E. L. Keyes, Youngstown.

Chillicothe—December 7, Dr. Derrick Vail, Cincinnati.

Mansfield—November 15, Dr. Albert D. Frost, Columbus.

Cambridge—December 7, Dr. A. B. Bruner, Cleveland.

Troy—November 21, Dr. A. D. Ruedemann, Cleveland.

12. Present-Day Viewpoints On the Diagnosis and Treatment of Cancer

Cancer ranks second as cause of death. Since the public is being trained to consult physicians earlier, we must be conversant with the latest methods for diagnosis and most efficient means for treatment. The following points emphasized: (a) Cancer is not a single disease, (b) the cause is not known but in many cases the "inciting factor" is recognized, (c) cancer is **not** an infection, (d) heredity plays a part in some forms of cancer, (e) properly performed biopsy does not increase risk of metastasis. No single agent or procedure applicable in all manifestations of disease. Treatment must be individualized. Determining factors are: (1) anatomical location, (2) tissue or organ involved, (3) extent and duration of involvement, (4) type of tumor, whether radioresistant or not. Brief consideration of various common forms of cancer, indicating high points in diagnosis and choice of treatment methods. We must not idly await the discovery of a single cause of all types of cancer, but rather use our present knowledge to the utmost to prolong life and reduce suffering.

Defiance—November 9, Dr. L. A. Pomeroy, Cleveland.

Chillicothe—November 9, Dr. Mont R. Reid, Cincinnati.

Mansfield—October 4, Dr. Pomeroy.

Cambridge—December 7, Dr. Edgar C. Baker, Youngstown.

Troy—September 28, Dr. Reid.

Counties in Various Regions

Counties comprising the five regions, dates of the six sessions, names of local chairmen, and location of the meetings, follow:

Region A. Sessions will be alternated between Findlay and Defiance. Dr. Lawrence Goodman,

Findlay, and Dr. John U. Fauster, Jr., Defiance, co-chairmen. September 28, October 26 and November 21, Elks' Club, Findlay; October 12, November 9 and December 7, High School Auditorium, Defiance. Counties: Williams, Defiance, Paulding, Van Wert, Mercer, Fulton, Henry, Putnam, Allen, Auglaize, Lucas, Wood, Hancock, Hardin, Ottawa, Sandusky, Seneca and Wyandot.

Region B. Elks' Home, Chillicothe. Dr. Russell C. Bane, chairman. September 28; October 12, 26; November 9, 21, and December 7. Counties: Adams, Brown, Clermont, Clinton, Fairfield, Fayette, Franklin, Gallia, Highland, Hocking, Jackson, Lawrence, Meigs, Pickaway, Pike, Ross, Scioto and Vinton.

Region C. Mansfield-Leland Hotel, Mansfield. Dr. Mabel Emery, chairman. September 20, October 4, 18; November 1, 15, and December 6. Counties: Ashland, Crawford, Delaware, Erie, Holmes, Huron, Knox, Lorain, Marion, Medina, Morrow, Richland and Wayne.

Region D. State Highway Patrol Barracks, Cambridge. Dr. O. R. Jones, chairman. September 28, October 12, 26, November 9, 21, and December 7. Counties: Athens, Belmont, Carroll, Columbiana, Coshocton, Guernsey, Harrison, Jefferson, Licking, Morgan, Monroe, Muskingum, Noble, Perry, Tuscarawas and Washington.

Region E. Elks' Club, Troy. Dr. Berton M. Hogle, chairman. September 28; October 12, 26; November 9, 21, and December 7. Counties: Butler, Champaign, Clark, Darke, Greene, Logan, Madison, Miami, Montgomery, Preble, Shelby, Union and Warren.

New Chance for Medical Reserve Officers for Active Duty

Funds have been made available for extended active duty of 192 officers of the Medical Department Reserve during the fiscal year 1940, in connection with the air corps expansion. It is contemplated ordering to active duty, principally for assignment to the air corps stations, about one quarter of this number immediately, and the remainder in January, 1940. Duty will be with the regular army and will be for one year, with the privilege of extending one additional year.

Although age will not constitute a bar to assignment, and both captains and lieutenants are eligible, it is hoped that as great a number as possible may be qualified for commission in the medical, dental and veterinary corps of the regular army.

Applications should state the number of dependents and be accompanied by a recent report of physical examination made preferably by a medical officer of the regular army.

For further particulars inquire at Columbus Military District Headquarters, 414 Federal Bldg., Columbus, Ohio.

Four Million Readers!

News Releases by Bureau of Public Education Proving Popular, Figures Reveal

Among the many projects planned by the new Bureau of Public Education the program of furnishing news releases to the newspapers of Ohio has been the first to get well under way because it requires necessarily less groundwork than some of the others. Tangible results of this part of the Bureau's work are, therefore, already easily measured.

According to a conservative estimate, based on circulation statistics, the four stories thus far released have reached a potential total of more than 4,000,000 readers. They have been printed in 77 cities and towns in all quarters of Ohio. Two were distributed by direct mail, one was prepared exclusively for certain metropolitan Sunday papers, and one was carried to Ohio dailies on the wires of the Associated Press, United Press, and International News Service. The two general releases were on goiter prevention and the menace of cathartics to an infected appendix.

The encouraging response to these news releases proves one thing beyond refutation: that the editors of Ohio regard them as an educational feature of benefit to the public. Not only have news editors put them into the columns of their papers, but in several instances editorial writers and nationally syndicated columnists have built highly interesting articles around releases prepared by the Bureau.

At this writing the Bureau is planning a series of releases for the immediate future. It will furnish the press with information about the Association's State Fair Exhibit and will distribute news about the regional postgraduate lectures. It will also continue to make newspaper abstracts of fitting articles from *The Journal* and will, from time to time, prepare releases of general health education nature.

Several veteran newspapermen have been informed of the Association's new program of public education and have commended it highly. They indicated that news stories from the Bureau will be well received in their offices.

These are the cities and towns in which articles from the Bureau of Public Education have been published:

Akron, Ansonia, Arcanum, Ashland, Barberton, Batavia, Berea, Bloomville, Bucyrus, Canton, Celina, Chillicothe, Cleveland, Cleveland Heights, Coldwater, Columbus, Continental, Covington, Dayton, DeGraff, East Cleveland, Euclid, Gibsonburg, Gallipolis, Girard, Glouster, Grand Rapids, Granville, Harrison, Hubbard, Ironton, Johnstown, Kenton, Lakewood, Leipsic, Mantua, McArthur, Marysville, McConnelsville, Mansfield, Marietta, Marblehead, McDonald, Milan, Mingo Junction, Monroeville, Mt. Sterling, Newark, New Bremen, New Madison, Niles, Norwalk, Oak Harbor, Parma, Paulding, Pemberville, Perrysburg, Rittman, Sandusky, Springfield, Steubenville, Tiffin, Tiro, Toledo, Upper Sandusky, Versailles, Wadsworth, Wapakoneta, Wellsville, Westerville, West Milton, Weston, Willoughby, Woodsfield, Woodville, Xenia, Zanesville.

Drs. Cummer, Coffman and Means Among Those Appointed To New Public Health Council by Governor Bricker

A NEW Public Health Council, appointed by Governor Bricker pursuant to the provisions of House Bill 301 passed by the Ninety-Third General Assembly and which became a law on August 17, took office on August 18.

Members of the new council and their terms of office are:

Clyde L. Cummer, M.D., Cleveland, to July 1, 1945.

Ward D. Coffman, M.D., Zanesville, to July 1, 1944.

Mrs. C. Tracy LaCost, Toledo, to July 1, 1943.

S. F. Ridings, D.D.S., Greenville, to July 1, 1942.

William Helmer, Cincinnati, to July 1, 1941.

Russel G. Means, M.D., Columbus, to July 1, 1940.

At the first meeting of the council, held after the members had been sworn in at the office of the Governor, Dr. Cummer was elected chairman and Dr. Means, vice chairman.

Members of the old council whose terms expired on August 17 when House Bill 301 became a law were: Dr. W. I. Jones, Columbus; Dr. Warren C. Breidenbach, Dayton; Dr. H. G. Southard, Marysville, and A. Julius Freiberg, Cincinnati.

DUTIES OF NEW COUNCIL

Among the duties and responsibilities of the new council under the provisions of House Bill 301, are the following:

Compile a list giving the names of not less than six physicians who meet the qualifications for the office of state director of health enumerated in the act and certify such names to the Governor from which list of names the Governor must appoint a health director, subject to confirmation by the Senate.

Recommend the removal of the director of health by the Governor if charges of incompetence or gross neglect of duty should be filed against him and the council, after proper hearing has been held, finds such charges to be true. (The director cannot be removed except upon recommendation of the public health council. Members of the council may be removed by the Governor for incompetence or gross neglect of duty.)

Make and amend sanitary regulations of general application through the state.

Take evidence in appeals from the decision of the director of health in a matter relative to the approval or disapproval of plans, locations, estimates of cost or other matters coming before the director for official action.

Conduct hearings in cases where the law requires that the State Department of Health shall give such hearings and render decisions which shall be binding on the director.

Prescribe by regulation the number and functions of divisions and bureaus and the qualifications of chiefs of divisions and bureaus within the State Department of Health.

Consider any matter relating to the preservation and improvement of the public health and advise the state director of health, making such recommendations as the council deems wise.

House Bill 301, as enacted, establishes certain qualifications for the office of director of health, prescribes specific duties of the director, sets the term of office of the director at five years, provides that future appointments to the council shall be for six-year terms, except in the filling of vacancies, and specifies that not less than three members of the council must be doctors of medicine.

DATA REGARDING APPOINTEES

Members of the new council are exceptionally well-qualified for the important office to which they have been appointed. The three physicians appointed to the council are active members of the Ohio State Medical Association and their high professional qualifications and attainments well known to many members of the Association.

Dr. Cummer is a graduate of the School of Medicine, Western Reserve University in 1907; specialist in dermatology and syphilology, and assistant clinical professor of dermatology and syphilology at Western Reserve University. He is a former president of the Ohio State Medical Association; former president of the Cleveland Academy of Medicine and the Cleveland Medical Library Association; present chairman of the Committee on Education, Ohio State Medical Association; fellow of the American Medical Association, member of the House of Delegates, A.M.A., and member of the Council on Scientific Assembly, A.M.A.; fellow, director and treasurer of the American Academy of Dermatology and Syphilology; member of the American Dermatological Association; charter diplomate, Board of Dermatology and Syphilology; visiting dermatologist and syphilologist and director of clinic, St. Vincent's Hospital, Cleveland.

Dr. Coffman is a graduate of the College of Medicine, University of Cincinnati, in 1919. He

is a surgeon, specializing in obstetrics and gynecology; former president of the Muskingum Academy of Medicine and the Eighth District Medical Society; member of the Ohio State Medical Association; fellow of the American Medical Association and of the American College of Surgeons; chief-of-staff, Good Samaritan Hospital, Zanesville.

Dr. Means is a graduate of the College of Medicine, Ohio State University; specialist in ear, nose and throat; and assistant professor, Division of Oto-Laryngology, College of Medicine, Ohio State University. He is president-elect of the Columbus Academy of Medicine and a member of the Committee on Education, Ohio State Medical Association; member of staffs at University, White Cross and St. Francis Hospitals, Columbus; fellow of the American Medical Association, American College of Surgeons and American Academy of Ophthalmology and Oto-Laryngology; diplomate of the American Board of Oto-Laryngology.

Mrs. LeCost, president of the Ohio Congress of Parents and Teachers, and president of the President's Conference of the National Congress of Parents and Teachers, has had an active part in parent-teacher work for many years, having also been identified with the state parent-teacher work in Ohio as director, fourth vice president, juvenile protection chairman and first vice president, adviser to Councils. Mrs. LaCost was graduated from Oberlin College and is a member of Phi Beta Kappa. She has attended Western Reserve University and studied Christian Education at Wooster College. She is the wife of C. Tracy LaCost, 2515 Glenwood Ave., Toledo, president of the LaCost-Powers Co., and is the mother of three daughters. In Toledo, she is a member of the Woman's Club, Social Hygiene Council, Motion Picture Council, Delphian Kent Chapter, superintendent of young people in the Presbyterian Church and assistant superintendent of the Church School. She was recently appointed to the executive committee of the Ohio Traffic Safety Council.

Dr. Ridings, a practicing dentist, was graduated from the Ohio College of Dental Surgery, Cincinnati, in 1918. He was a member of the State Board of Dental Examiners from 1930 to 1935 and served in 1925-26 as a member of the House of Representatives, Eighty-Sixth General Assembly. Dr. Ridings is a member of the American Dental Association and the Ohio State Dental Society. He is a former president of the Western Ohio Dental Society. He belongs to Psi Omega, dental fraternity, various Masonic bodies, Lutheran Church, Rotary Club, and the American Legion.

Mr. Helmer, sanitary engineer and plumbing contractor, is an active member of the Cincinnati Master Plumbers' Association and the Ohio State Plumbers' Association. He has served as a member of the stream pollution and sewage disposal committees of the Cincinnati society and is a former secretary of that organization. He is a past state councilor of the Junior Order of United American Mechanics and holds a certificate from the United States Civil Service Commission in plumbing and sanitary engineering.

DR. MARKWITH RE-APPOINTED AS DIRECTOR FOR 5-YEAR TERM

From a list of nine physicians regarded by the new Ohio Public Health Council as qualified for the position of State Director of Health and submitted to Governor Bricker in compliance with the provisions of House Bill 301, the Governor on August 22 selected Dr. R. H. Markwith to serve as State Director of Health for a five-year term beginning August 17, 1939, the effective date of the reorganization act. Dr. Markwith has been serving as State Director of Health since January 30 when he was appointed by Governor Bricker under the old statutes which provided that the director should serve at the pleasure of the Governor. House Bill 301, enacted by the Ninety-Third General Assembly, extended the term of office of the director to five years and provided that the director may be removed by the Governor only for incompetence or gross neglect of duty, only after proper hearing before the Public Health Council, and only upon recommendation of the council. One of the primary purposes of the new law is to provide greater continuity in public health administration in Ohio through extension of the term of office of the director. Dr. Markwith was for 16 years health commissioner of Summit County and through training and experience is exceptionally well qualified for the directorship.



Dr. Markwith

Indictment Against American Medical Association Held Invalid by Federal Court in Stinging Decision

WHAT steps, if any, the United States Department of Justice intends to take as an aftermath of the sweeping victory won by the American Medical Association through the decision rendered by Justice James M. Proctor, District U. S. Court, District of Columbia, quashing the indictment which charged the A.M.A. with violation of the anti-trust laws, had not been revealed by the department up to the time this issue of *The Journal* went to press.

The department has three alternatives: (1) appeal to the United States Supreme Court; (2) calling of another grand jury to consider another indictment; (3) abide by the decision handed down by Justice Proctor.

ATTITUDE OF PROFESSION

Justice Proctor's decision has served to clarify a confusing situation and exonerates the medical profession of vicious allegations of wrong-doing. The decision will encourage the medical profession to fight even harder to protect its ideals, traditions and ethical principles and to vigorously oppose proposals which it knows will not be beneficial to public health and public welfare. On the other hand, the profession will not violate any statutes in the pursuit of its calling and in its opposition to ill-advised medical and health programs; nor will it discontinue its constant efforts to devise and maintain sound methods of making good medical care easily available to all the people.

Justice Proctor's important opinion should be filed in the archives of every physician after it has been carefully read. The full text of the opinion rendered on July 26, 1939, follows:

TEXT OF OPINION

The indictment charges a conspiracy to restrain trade in the District of Columbia in violation of section 3 of the Sherman Anti-Trust Act. The defendants are American Medical Association, a national organization of physicians; two of its subordinate bodies, the Medical Society of the District of Columbia and Harris County Medical Society of Houston, Texas, also the Washington Academy of Surgery, not fully identified, and twenty-one individual doctors all members of the national body, some officers thereof, other members and officers of the Medical Society of the District of Columbia. All defendants have demurred to the indictment. It is very long, and only abbreviated references will be made to such parts as are deemed necessary to this decision.

Group Health Association, Inc. (hereinafter called association), is alleged to be an association of government employees, engaged "in the business of arranging for the provision of medical care and hospitalization to its members and their dependents on a risk-sharing prepayment basis". Medical care is provided by a staff of salaried practitioners engaged in group practice under a medical director. A clinic is maintained, and limited hospital expenses are defrayed for the members and their dependents.

The defendents are alleged to have conspired (1) to restrain the association in its business of arranging for the provision of medical care and hospitalization to its members and their dependents, (2) to restrain such members in obtaining, by cooperative efforts, adequate medical care for themselves and their dependents from doctors engaged in group medical practice, (3) to restrain doctors serving on the medical staff of the association in pursuit of their callings, (4) to restrain other doctors in the District of Columbia, including some of the individual defendants, in pursuit of their callings and (5) to restrain Washington hospitals in the operation of their businesses.

The demurrers raise basic objections to the indictment. Of first importance is the contention that none of the alleged restraints has reference to a trade; that section 3 comprehends only those occupations in commercial life carried on in the marts of trade activity; therefore, that the medical profession and the business of the association and hospitals do not constitute "trade" within the purview of the statute. Against this contention, the government's position is that all who are occupied in any activity whereby they supply money's worth for full payment are engaged in trade; that section 3 does cover all such activities; therefore that the practice of medicine and the businesses of the association and hospitals do fall within the scope of the statute.

MEDICAL PRACTICE NOT A TRADE

Is medical practice a trade within the meaning of section 3 of the Sherman Act? In my opinion it is not. I think the matter is settled by the Supreme Court in the case of *Atlantic Cleaners & Dyers* v. *United States* 286 U. S. 427. That case squarely presented the question whether "trade" is used in a narrow sense, as importing "only traffic in the buying, selling or exchanging of commodities," or in a broader sense. It fairly called for a definition of the word. This the court undertook to give. In so doing, it declared that the word "trade" was used in section 3 of the Sherman Act in the general sense attributed to it by Justice Story in the case of the *Schooner Nymph*, 1 Summ. 516, 18 Fed. Cases 506, No. 10,388. The court, intending to give a full and broad meaning, adopted for its own definition for "trade" the language of Justice Story in that early case, quoting therefrom as follows:

"The argument for the claimant insists that 'trade' is here used in its most restrictive sense and as equivalent to traffic in goods, or buying or selling in commerce or exchange. But I am clearly of opinion that such is not the true sense of the word, as used in the thirty-second section. In the first place, the word 'trade' is often and, indeed, generally used in a broader sense as equivalent to occupation, employment or business, whether manual or mercantile. Whenever any occupation, employment or business is carried on for the purpose of profit, or gain, or a

livelihood, not in the liberal arts or in the learned professions, it is constantly called a trade. Thus, we constantly speak of the art, mystery or trade of a housewright, a shipwright, a tailor, a blacksmith and a shoemaker, though some of these may be and sometimes are, carried on without buying or selling goods."

PROFESSION EXPRESSLY EXCEPTED

Thus we have this recent controlling decision defining the word trade and expressly excepting the learned professions of which admittedly the practice of medicine is one. The decision is in harmony with others rendered before and after the *Cleaners and Dyers case.* See *Fed. Trade Comm.* v. *Raladam,* 283 U. S. 643; *Graves* v. *Minnesota,* 273 U. S. 400 and *Semler* v. *Board,* 294 U. S. 608. The restraint alleged against the doctors in specifications three and four of the charge are clearly not within the purview of the statute. I cannot accept the refinements of thought whereby it is argued by the government that the Court in quoting Justice Story was not defining "trade" but merely illustrating the narrow and broad concepts of the word. Nor does the decision lend any support to the idea that by enacting section 3 Congress intended to exercise all its plenary power over the District of Columbia to prohibit restraints against all business activities of the citizen. The Court has simply said that Congress meant to deal effectively with the evils resulting from contracts, combinations and conspiracies in restraint of trade—not all restraints upon every business pursuit, but only those affecting trade.

Doubtless, in the fullness of its power over the District, Congress could have prohibited restraints upon all occupations of the citizen. But there is nothing in the history of the legislation to suggest the need for such a broad reach of power and clearly it was not intended.

The government has cited many English and American cases dealing with restrictive convenants ancillary to agreements by doctors concerning the sale or conduct of their practice, in which the courts have applied the common law doctrine as to "contracts in restraint of trade". It is argued that these cases have, in a legal sense, drawn medical practice within the orbit of trade, giving to the word a common law meaning to include the professions. From this, it is further argued that at common law restraints upon the practice of medicine were "restraints of trade" and that Congress in the Sherman Act used the term in such a sense. But those cases are beside the point.

They do not involve any question as to whether medicine is a trade. They accepted the universal understanding of it as a profession. Nor do they define "trade." They merely apply a rule of law. At most, such cases serve only to illustrate the development of a legal doctrine, having its origin in contracts concerning tradesmen, which became known as the doctrine "against restraint of trade," and which in course of time was extended and applied to agreements by doctors respecting their professional practice.

MUST FIND STATUTE SANCTION

The case of *Pratt* v. *Medical Assoeiation,* 1 K. B. 244, upon which the prosecution places much reliance, is interesting in the similarity of facts there proven and here alleged; yet the legal aspects differ greatly. The suit was a civil action in tort by the plaintiff doctors to recover damages for malicious injury to their means of livelihood. The claim was ground upon common law principles which hold every man liable in damages for wrongful injury to another's means of livelihood.

Combination was not the gist of the action; that circumstance only increased the damage. So here, if the livelihood of group practitioners has been injured by the wrongful acts of the defendants, they too have redress in a civil court. But the charge in the present case is criminal, and to stand must find its sanction solely in the statute.

Coming now to other specifications of the charge, one, two and five. Is the association, or its members or the hospitals, engaged in trade within the meaning of section 3 of the statute? The association is alleged to be a nonprofit cooperative association of government employees engaged in the business of arranging for the provision of medical care and the hospitalization to its members and their dependents.

The plan and purpose, it is charged, was to hinder and obstruct the association in procuring and retaining on its staff qualified doctors; to hinder and obstruct its doctors from the privilege of consulting with others and using the facilities of the Washington hospitals, and to hinder and obstruct the association in obtaining access to hospital facilities for its members and its doctors from treating and operating upon their patients in hospitals. The foregoing references to Washington hospitals in the plan set forth forms the only support for the fifth specification, charging a purpose to restrain the business of operating said hospitals.

ADOPTED STORY DEFINITION

In previous discussion of the *Cleaners and Dyers' case* I have expressed the view that the Court in giving to the word "trade" its full meaning adopted the definition of Justice Story as its own. That definition covers both the narrow and the broad understanding of the term. Its most restricted sense comprehended "traffic in goods or buying and selling in commerce and exchange". Manifestly, neither the association, its members nor the hospitals are engaged in that sort of trade.

Nor do they, in my opinion, come within the broader class of manual or mercantile pursuits carried on for profit or gain without buying or selling goods. The business of the association was not of a manual or mercantile nature. It was a nonprofit cooperative institution whose corporate object was to render service in providing medical and hospital care for its members. The argument for the government that the business of the cleaners and dyers involved merely the sale of service, and yet was held to be a trade, overlooks the fact that the very essence of that service was the skilful use of labor and material, quite equal to the "art, mystery or trade" of a tailor, blacksmith or shoemaker, mentioned by Justice Story in illustration of manual and mercantile pursuits falling within the category of trade.

Other Federal and state decisions bear out the conception of trade as an occupation or pursuit of a mercantile character. See *Semler* v. *Board,* 294 U. S. 608; *Toxaway Hotel Co.* v. *Smathers & Co.,* 216 U. S. 439; *U. S. Hotel Co.* v. *Niles,* 134 Federal 235; *Harms* v. *Cohen,* 279 Federal 276 (as to musical composers); *People* v. *Klaw,* 106 N. Y. S. 341 (as to the theater); *Metropolitan Co.* v. *Hammerstein,* 147 N. Y. S. 532 (as to grand opera); *Werth* v. *Fire Insuranee Companies' Adjustment Bureau, Ine.,* 171 S. E. 255

(as to the insurance business); *Whitcomb* v. *Reid*, 31 Miss. 569 (as to dentistry), and *State* v. *McClellan*, 31 A. L. R. 527 (as to the laundry business).

POSITION HELD EXTREME

The thesis of government counsel taken from the opinion in *Brighton College* v. *Marriott*, 1 K. B. 312, 316, that "trade" embraces all who habitually supply "money's worth for money payment" and their contention that the statute should be so broadly construed represents an extreme position which does violence to the common understanding of "trade," rejects authoritative decisions of our courts and ignores cardinal rules of statutory construction.

Their proposition encompasses all gainful work of the citizens. Can it be supposed if Congress had any such drastic intention it would not have made the purpose clear? Certainly it is not for the courts to stretch an old statute to fit new uses for which it was never intended. *United States* v. *Gradwell*, 243 U. S. 476, 488. That would be nothing short of "judicial legislation". The charge that members of the association were restrained (specification 2) is devoid of legal substance. Their efforts to obtain medical care is expressed through the medium of the association, a corporate entity distinct from the individual members. Upon no theory can they be treated as engaged in the business of the corporation.

Finally, when the indictment is carefully studied in all its parts, each in relation to the others, it is difficult to escape the conclusion that in its substantial realities the scheme set forth directly centered upon various forms of restraint to be exerted against physicians in rendering treatment and care to their patients, and that all else is incidental to that design. If restraint upon doctors was the only real direct and immediate effect, any indirect effects upon the association or hospitals would not suffice to support the charges as to them. *Standard Oil Co.* v. *United States*, 283 U. S. 163, 179; *Nash* v. *United States*, 229 U. S. 373.

SUFFICIENCY OBJECTIONS

The defendants have raised objections to the sufficiency of the indictment as a pleading. These go mainly to the claim that many of the allegations dealing with essential and material features of the charge are vague, indefinite and uncertain. The objections are far too numerous to deal with separately. There is merit to many of them. The indictment is afflicted with vague and uncertain statements. In some instances material facts are altogether lacking. An important instance concerns the charge that one purpose of the conspiracy was to restrain the business of the Washington hospitals.

The indictment is barren of any statement of the business methods used by a single hospital in the letting of facilities and service to patients. This is fatal to that particular specification, for without such facts it cannot be known whether loss of patients through operation of the scheme would injuriously affect the economic welfare of any hospital.

Moreover, the particular plan and purpose of the conspiracy as respects the hospitals is only inferentially stated in that part which deals with the plan and purpose of the scheme as against the association and its doctors. Such a method of stating the material part of the charge does not meet the fundamental requirement that a criminal accusation be stated fully, clearly and with directness and certainty. *United States* v. *Hess*, 124 U. S. 483; *United States* v. *Geare*, 54 App., D. C. 30; *McMullen* v. *United States*, 68 App., D. C. 302.

INDIVIDUAL CHARGES QUESTIONED

A question also arises as to whether the charge is laid against the individual doctors named in the caption. This is due to the pleader's statement that they "will be referred to hereinafter as the individual defendants," whereas thereafter the charge itself is laid only against "the defendants," who the caption indicates include only the several medical societies. It does seem that as to such simple, yet all-important matters, an indictment should be so drafted as to exclude any question whatever.

The inducement, as well as the charging part, setting forth the plan and purpose and acts done to effectuate the conspiracy, abound in uncertain statements. Inference, opinion and conjecture are also freely indulged. This is especially so in the inducement, much of which seems unnecessary to a statement of the charge. It is questionable whether some of it would be deemed relevant and competent in proof of the offense. Every indictment should be confined to a clear and dispassionate statement of essential fact. Thus, an accused can better know the exact offense with which he is charged and will not be confused in making his defense. Ordinarily improper matter in the indictment unnecessary to support the charges will not vitiate the indictment. It will be treated as surplusage and disregarded. But I doubt if such treatment would suffice to relieve these defendants of the prejudice likely to arise by an indictment which smacks so much of a highly colored, augmentative discourse against them. It must be remembered that when a case is finally submitted to a jury for their secret deliberations the indictment goes with them.

ILLEGAL OPERATION CONTENTION

The contention is made that the association is operating illegally in the fields of medicine and insurance; that as its activities are unlawful they do not come under the protection of the statute against restraints of trade. The indictment describes the association as a nonprofit, cooperative society, organized under the laws of the District of Columbia, engaged in the business of arranging for the provision of medical care and hospitalization to its members and their dependents on a risk-sharing prepayment basis. This is enough to indicate that it was organized under those sections of the general corporation laws providing for incorporation of societies for benevolent, charitable, educational, literary, musical, scientific or missionary purposes, including societies formed for mutual improvement or promotion of the arts. Thus, the view is strengthened that the association was not engaged in trade, for such corporate functions clearly would not fall under that category. However, I do not think it can be said from the bare allegations of the indictment, taken in their entirety, that the association is engaged in medical practice or insurance. Whether or not that is so could better be decided upon the evidence if in a trial it should be deemed pertinent to inquire into the question.

Finally, section 3 of the Sherman Act upon which the indictment is founded has been attacked by defendants as unconstitutional. It is argued that the statute is too vague and uncertain to fix a definite standard of guilt or inform

one accused of violating it of the nature and cause of the accusation. I do not agree with the argument. If I did, the circumstances would not justify me declaring the statute invalid, for that would be unnecessary, hence inappropriate, in view of my holding that the indictment is bad on other grounds.

The several demurrers to the indictment are sustained. Judgment will be entered accordingly.

Membership in the Ohio State Medical Association hit a new all-time high—6,210 —on August 15, compared with 5,935 a year ago and 6,128 on December 31, 1938.

Fine Program Planned for Meeting of Northwest Ohio Society on Oct. 23

A group of faculty members of the University of Michigan Medical School will be among the speakers at the Ninety-Fifth Annual Meeting of the Northwestern Ohio Medical Association in the Strand Theatre, Van Wert, Tuesday, October 23. They are: Dr. A. C. Furstenburg, dean of the School; Dr. Carl E. Badgley, professor of orthopedic surgery; Dr. Frederick A. Coller, professor of surgery; Dr. J. T. Bradbury, department of obstetrics and gynecology, and Dr. Harry A. Towsley, department of pediatrics. The complete program follows:

9:15-10:15 A.M.—"Fractures of the Femur", Dr. Badgley.

10:15-11:00—"Therapeutic Endocrinology", Dr. Bradbury.

11:00-11:45—"Contagious Diseases", Dr. Towsley.

12:00- 1:15 P.M.—Luncheon at the New Armory. "Thoughts on the Socialization Problem of Present Day Medicine", Dr. E. J. McCormick, Toledo.

1:15- 1:30—Business session.

1:30- 2:15—"Acute Infection of the Mouth, Throat and Neck", Dr. Furstenberg.

2:15- 3:00—"Undulant Fever", Dr. Walter M. Simpson, director, Kettering Institute, Miami Valley Hospital, Dayton.

3:00- 3:45—"Treatment and Closure of Wounds", Dr. Coller.

The meeting will be preceded by a golf tournament on Monday, October 2, at the Willow Bend Country Club, Van Wert, beginning at 1 o'clock. Prizes will be awarded. Physicians wishing hotel reservations should write to Dr. R. B. Good, Van Wert.

Officers of the Northwestern Ohio Medical Association are: Dr. W. D. Hickey, Leipsic, president; Dr. D. R. Spitler, Hoytville, vice president; Dr. F. G. Maurer, Lima, secretary; Dr. C. B. Geiger, Holgate, treasurer; Dr. O. P. Klotz, Findlay, Councilor for the Third District of the Ohio State Medical Association; Dr. E. J. McCormick, Toledo, Councilor for the Fourth District.

Procedure Under N. Y. Pre-Marriage Examination Law Outlined

Since the enactment of a law by the New York State Legislature in 1938 requiring a physical examination, including a standard serological test for syphilis, on all applicants for marriage licenses within the state, several instances have arisen in which residents of other states have had difficulties in securing marriage licenses in New York State because of misinterpretations of the law by themselves or their examining physicians. In order that such inconveniences may be avoided, Dr. Edward S. Godfrey, Jr., New York State Commissioner of Health has issued the following outline of procedures for examination of out-of-state applicants for marriage licenses in New York State, exclusive of New York City.

Any physician duly licensed to practice medicine in the state in which he resides or in which he maintains his office may perform the necessary physical examination.

The specimen of blood must be sent to an approved laboratory in New York State. It is suggested that specimens be sent to the Division of Laboratories and Research, New York State Department of Health, New Scotland Avenue, Albany, N. Y., where examinations will be made free of charge.

The specimen should be labeled "for premarital examination".

The use of air mail is recommended when the specimen must be sent a great distance.

Upon completion of the test the laboratory will send the physician, in addition to the usual laboratory report, a certificate to the effect that the serological test was performed as a part of a premarital examination.

If, in the opinion of the examining physician the applicant is free from syphilis or does not have the disease in a stage which may become communicable, he should complete the certificate as indicated thereon.

The certificate is given to the applicant who will submit it to the clerk when the marriage license is applied for.

The Commissioner of Health of the city of New York has approved certain out-of-state laboratories for the performance of serological tests on persons applying for marriage licenses in New York City. Requests for information concerning laboratories approved by the New York City Department of Health should be addressed to that department at Worth and Centre Streets, New York City.

Columbus—An article entitled "The Relation of Trauma to Disease and its Compensability", by Dr. Sidney McCurdy, supervisor of the Medical Section of the State Industrial Commission, appeared in the August, 1939, issue of *Industrial Medicine.*

Taft Predicts Federal Medical Program in 1940; Voices Hope Physicians Will Offer Plans; States Own Views

A PREDICTION that "in 1940 a Federal medical program of some kind will be adopted" and a warning that "what form it takes depends largely on the medical profession" were voiced at the recent corner-stone laying ceremonies for the new Doctors' Hospital, Washington, D. C., by the Hon. Robert A. Taft, junior United States Senator from Ohio.

Inasmuch as Senator Taft is one of the leading contenders for the Republican nomination for President of the United States, his statements and observations pertaining to the medical and health activities of the Federal government and to proposed health legislation are of peculiar interest and importance.

TEXT OF ADDRESS

The complete text of Senator Taft's address follows. It should be read carefully by Ohio physicians. Those of his physician-constituents who may have the urge to express to Mr. Taft their views on the subject he discussed, should feel free to do so:

* * *

"It gives me the greatest pleasure to say a few words at the laying of the corner-stone of the Doctors' Hospital here in Washington. Almost unique among similar enterprises of the present day, this building is being constructed entirely from private resources, without government assistance of any kind whatsoever.

"It is designed to provide two hundred and fifty additional hospital beds for the District of Columbia, of a simple but efficient character, designed to reach patients who can pay approximately six dollars a day either from their own resources or as members of the hospital associations, which have been extended so widely in the District of Columbia.

LAUDS MEDICAL PROFESSION

"It has been organized, and the money raised by doctors, to meet the local need for hospitals, in a city which is perhaps growing faster than any other city in the United States because of the increased activities of the government departments. I enjoy the opportunity of praising the initiative of the medical profession of the District of Columbia in working out its own problems without lying down on the government.

"To some extent the medical profession is subject to the same criticism which is often directed at members of the legal profession. The abler members of the profession are likely to become so busy in their own practice that they pay too little attention to the question whether the profession as a whole is covering adequately its whole broad field of public service. Because their own task is well done, they are likely to feel no great concern about the question whether the administration of law or the administration of medicine is serving the public and the country as it should.

"Of course this is only a generalization, for countless reforms in the field of law have been initiated by lawyers, and countless reforms in the field of medicine by doctors. Here today we see how constructive enterprises are carried through to success if a few men are willing to devote their time and energy to the task.

DISCUSSES WAGNER BILL

"We have before us in Congress today the National Health Bill introduced by Senator Wagner, proposing to extend vast Federal assistance throughout the field of public health and medical care. It appropriates, out of our growing deficit, approximately $100,000,000 of Federal money the first year, and gradually increasing sums thereafter, until in ten years it will cost the Federal government more than $400,000,000, and require the States to supply approximately the same amount. This money is to be distributed to those States which have adopted State plans in various fields of medical work.

"In general the character of the plan is left to the State, but the appropriation of money collected from all the States to those States which go along with the program forces all the States as a practical matter to adopt some plan in each one of the fields covered by the bill. Six categories of State activity are provided for, namely: maternal and child welfare, handicapped children, public health work, hospitals, general medical care and sickness insurance. The bill has been strenuously attacked by many witnesses from the medical profession, and is not likely to be pressed at this session, but I believe that in 1940 a Federal medical program of some kind will be adopted. What form it takes depends largely on the medical profession. I am most hopeful that the doctors determine what comprehensive program can be adopted to improve the health of the American people, and that they propose a practical measure to assist that program.

BACKS DOCTORS' VIEWS

"The present bill seems to me needlessly complicated. Its administration will take place under

three different Federal departments. Every State must adopt at least six separate plans, and for each plan there is an Advisory Committee, so that the bill will create approximately three hundred different boards, largely composed of laymen. Surely the Federal health program ought to be consolidated under one head, and each State program ought to be worked out as far as possible under a single State department.

"The doctors feel very strongly, and I think justifiably, that while the Wagner bill does not itself contain specifically a program of socialized medicine, it is proposed by those who favor socialized medicine, and is open to the suspicion that it will afford a vehicle through which they may put their State-controlled medical care into effect. I feel confident that proper amendment of the bill can prevent such a result. We should be, above all, concerned that every patient retain the right to select his own physician, so that the personal relationship may not be disturbed, and the success of the individual physician may depend on his real ability instead of his political connections. We should be concerned that no great proportion of the doctors become employees of government. I see no reason why the present condition of individual service should not be preserved, even though we adopt the principle of Federal financial assistance.

SAYS CLAIMS EXAGGERATED

"Undoubtedly the deficiency in medical service in many parts of the United States has been exaggerated in the report of the sponsors of the bill, but nevertheless there is a lack of such service, resulting principally from the poverty of millions of American citizens. Unable to pay for medical service, they find no service at all in some rural sections: or they find the free service supplied by their cities or States inadequate or ineffective; and they may not be fortunate enough to receive any of the tremendous amount of charitable service provided by physicians themselves. Of course nothing is more important than health in meeting the problems of the average family, and, if possible, it is even more important to those unable to pay for assistance than it is for those who are better off financially.

"There are those who question the wisdom of any Federal assistance in the health field, but as in the case of relief and old age pensions, we have found that the States and localities have practically exhausted their financial resources in dealing with the established activities of government, like schools, roads and city services. They were unable to push into the new field of assisting those classes who receive inadequate income, through relief and old age pensions. Most localities and States have undertaken health work, but do not have the funds to make it universally effective. Some localities have never been able to undertake it at all. Assistance from the Federal government in some fields is essential, and such assistance seems to me justified in the field of public health, providing it is in a reasonable amount to meet real needs in a sensible and economic manner.

"The sponsors of the present bill seem to grossly exaggerate the lack of hospital service in the United States. Disregarding all private hospital service, they apparently plan a vast system of public hospitals to take care of everybody who would like to go to a free hospital. Any hospital plan should certainly encourage the construction of private hospitals and their use by public and private patients to their full capacity. It should encourage private plans of hospital insurance, which will assist the success of private hospitals, and reduce the expense of operating public hospitals.

FAVORS PRIVATE ENTERPRISE

"The construction of this Doctors' Hospital here in Washington shows that a large part of our problem may be met without the pouring out of more millions from the Federal Treasury, and without turning over to some State or Federal official the entire determination of who shall receive hospitalization and when he shall receive it; and the hospital plan ought to be worked out deliberately to encourage philanthropic persons to invest their own money in the extension of private hospital service, as they have so liberally invested it during the past fifty years.

"There is hardly a field in which there has been more sensational and continuous improvement than that of medicine in the United States. That improvement has been due to the brilliant, unselfish and industrious work of thousands of physicians. It is not their fault that incomes are unequally distributed, and that efforts by local government to cover the entire field of health have been restricted by lack of resources. But now I hope they will take an active interest in seeing that the unequalled medical service received by most Americans is extended to the entire population. Their own interest and participation in the program will make it certain that it is not dominated by half-baked theorists, or by those who believe in a totalitarian state, directing the lives and caring for the health of all its citizens through the mechanical and usually careless action of government bureaus. I believe a Federal aid program can be worked out. I believe it can be much simpler and much more economical, and much more likely to preserve the essential independence of the doctors than the present Wagner bill. I believe it can be worked out with the assistance and cooperation of the doctors themselves."

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Federalized Medicine To Be Heated Issue In 1940 Campaigns

Let's take a look at the political and legislative horizon . . . . there lies the destiny of medical practice . . . . there poise the challenges which will confront the medical profession as the crucial year 1940 approaches.

Significant, or not, the following developments and observations are compiled for analysis by the alert physician who has his ear to the ground and his eye on the immediate future. . . .

Starting at the top, we find the pledge given the Young Democrats' Convention by the President of the United States to fight control of the nation by conservatives and his appeal that the voters be given "an opportunity to maintain the practice and the policy of moving forward with a liberal and humanitarian program" . . . . nothing specific mentioned but in the light of what has been tried at Washington and what is left in the way of proposed experiments, much may be inferred.

What of McNutt . . . Paul V. . . . former liberal governor of Indiana . . . new Federal Security Administrator . . . presidential candidate? Was the address which Mr. McNutt made to the assembled Young Democrats, referred to above, his sounding board . . . his platform? Be that as it may, the following excerpt from his address carries a prophecy of significance to physicians who are wondering about the 1940 developments. . . . "The Social Security system is, of course, incomplete. It will be strengthened and enlarged often in the years to come. As it stands today it contains obvious gaps which undoubtedly will be filled in the near future. I refer, for example, to provisions for economic loss due to disability and for public health and medical care. In addition, there is still work to do on the great problem of old-age security". . . .

Thus spoke Administrator McNutt . . . but that's only half of it if the dope of the twin dopsters, Pearson and Allen, of Washington Merry-Go-Round fame, is authentic . . . they're pretty close to the throne on most occasions. . . . Let's examine what Pearson and Allen said in their "merry-go-round" column on July 19 . . . quoting in part:

"There was a reason why Paul McNutt took his oath in the office of Dr. Thomas Parran, head of the Public Health Service, and also will have his headquarters there. . . . That is the tip-off to his real job as chief of the new Federal Security Agency. . . . His interest will be centered on the New Deal's social medicine program. . . . He will drive to prepare the ground for the enactment of legislation next year. . . . What form this legislation will take is something McNutt will work out with medical leaders and experts. The Wagner Bill will be the starting point".

What medical leaders . . . what experts? Is there any significance in the appointment by Administrator McNutt of Mary Switzer as his executive assistant. . . . Mary Switzer, who was assistant to Josephine Roche, chairman of the Interdepartmental Committee to Coordinate Health and Welfare, which committee drafted the so-called National Health Program on which the Wagner Bill is based? . . . What do you think? . . . Incidentally the Wagner Bill is not dead . . . just slumbering. It, as well as all other proposals not acted upon at the recent session of Congress, will be on the agenda when Congress convenes next January.

But, let's turn from personalities and personnel for a moment to dig a bit deeper . . . let's try to understand some of the strategy (if that be not too mild a term) behind all these goings-on . . . there is the crux, anyway . . . the same group, Wagner, et al, will be on the job. . . . What will be the line of attack?

Again we quote from Pearson and Allen:

"There are two reasons behind this undercover strategy: First is the 1940 presidential campaign. The administration wants a broad-gauged public health program to its credit on the law books as 1940 approaches. In the spring of 1936, it enacted the Social Security Act and made big capital of it among voters.

"Second reason is that the New Dealers have learned that Dr. Glenn Frank, chairman of the Republican program committee, is secretly formulating a public health plan for use as a GOP ballot lure.

"Exact nature and extent of Frank's Republican program is not known but inside information in the hands of the White House group indicates that he aims to have the GOP offer the plan as a concrete illustration of the constructive things it will accomplish if elected, as compared with Democratic lack of accomplishment.

"Administrative masterminds are out to beat the Republicans to the punch and it will be McNutt's goal to steal the thunder by putting over a Democratic health program".

We can't vouch for the accuracy of the foregoing statements . . . to date we have not seen a denial from either Democratic or Republican

leaders . . . we offer the observations for what they may be worth . . . only the future will reveal whether or not the health of the people is to become one of the political footballs of 1940.

There are other events which may not mean a thing . . . on the other hand they may be straws in the wind. For example . . . Taft's address at laying of cornerstone of Doctors' Building, Washington, D. C. (published in full in this issue of *The Journal)* . . . Lodge's bill (S. 2963), introduced shortly before Congress adjourned, proposing to amend the Social Security Act to provide for a system of health insurance. . . . Lodge is a Republican member of the United States Senate. . . . Announcement by the Department of Justice in the public press that it will carry to the Supreme Court the verdict of Justice Proctor, Washington, D. C., holding the indictment of the A.M.A. under the anti-trust laws as invalid . . . indicating the campaign of prosecution (some term it persecution) against the medical profession will be continued by those who are so determined to socialize the practice of medicine that all rules of justice and fair play have been waived.

Yes siree . . . 1940 promises to be a big year . . . "battle of a century". . . . Political Medicine vs. Scientific Medicine . . . all rules off . . . no pulling of punches . . . public the referee. . . . Wonder if the public realizes the size of the stakes? . . . Physicians' job to give them the picture . . . straight from the shoulder.

About the time clergy of the Methodist church at a convention in the East were heaping praise on sponsors of socialized medicine, Catholic hospital leaders were taking the hide off social medicine proposals at a conference in the West. Looks to us as if the Almighty Himself is confused about the question. But, of course, he wasn't a member of the committee which drafted the national health program.

Health Conditions In Germany Should Be An Object Lesson

Official statistics on the health of the German people reaching this country recently through the press of other European countries appear to substantiate the theory that economic and social conditions are much more important in safeguarding the health of any nation than any sort of medical and health program which may be devised.

It was pointed out that morbidity rates in Germany have soared during the past six years, indicating lowered disease resistance among the German people.

The following causes were listed: Poor nutrition due to insufficient quantity and inferior quality of foods; unhygienic overcrowding as a result of the youth movement; food poisoning due to spoilage of hoarded foods; poor food inspection; overwork; fewer physicians, midwives and raw supplies used in medical and health services.

Assuming that only a part of the picture described and attributed to bad economic and social conditions is accurate, it becomes apparent that even Germany's widespread system of sickness insurance and other social insurances cannot cope with situations which can be remedied only through the application of sound economic and social principles.

Conditions in Germany should be an object lesson to those in the United States who are insisting on putting the cart before the horse—establishing a national system of medical and health services along socialistic lines in lieu of improvements in our economic structure.

Quote from speech of U. S. Solicitor General Jackson before the Junior Bar Conference: "I have grave doubts that society will continue to support idle lawyers and at the same time go without their services once it wakes up to what it is doing. Our bar cannot claim to be discharging its full duty to society by rendering service that is out of reach of an increasing proportion of our people". Where have we heard those words before? Same old doctrine; same old preachment; same old pressure; same old blah!

P. G. Lectures Best Way To Keep Abreast of Medical Parade

Announcement in this issue of the programs for the second-year series of Regional Postgraduate Lectures produced by the Ohio State Medical Association for the benefit of all of its 6,200 members causes one to pause again to marvel at the miraculous changes which have taken place in the science and art of medicine during the past quarter of a century.

This being the case, it immediately becomes apparent that every physician to maintain his usefulness must remain a student to the very end of his professional career. One writer recently offered the comment that "the day a medical man ceases to learn, that is the exact date on which he should retire from practice". The same commentator correctly stated that "the standard of knowledge of the general practitioner of today often surpasses the peak of certain specialists twenty or twenty-five years ago".

There are many demands on the time of the present-day physician, both professional and social. Nevertheless, he cannot afford to neglect worthwhile opportunities to improve himself for the career which he has chosen. In our opinion,

the Regional Postgraduate Lectures of the Ohio State Medical Association, in general, offer great opportunities for the doctor of medicine in Ohio who is interested in keeping himself abreast of the times in scientific medicine and the practice of medicine. Easily accessible and without cost to the individual physician, these lectures deserve the active support of all members, especially because they are something which he will find helpful and beneficial.

One of the things which we can't understand is why some proponents of cooperative medical practice, voluntary insurance plans, and what-have-you, are so sure that such plans can be coexistent with compulsory health insurance that they refuse to worry about the latter. Come compulsory health insurance, exit private practice and all other plans, we predict.

Federal Hand-Outs Alluring but the Price Comes High

Those who have read the Wagner National Health Bill, introduced in the recent session of Congress, no doubt noted the sop contained therein in the form of provisions for so-called "grants-in-aid" to the various states for medical and health services.

Use of the grants-in-aid principle has become popular among the politicians as it is one of the sure-fire methods of fooling the taxpayers and making the states believe they are getting something for nothing. Obviously, quite the contrary is true. Not only do the states under the grants-in-aid scheme, put up the cash which the Federal Government so generously distributes, but in accepting such grants they automatically turn over to the Federal Government the right to say how such funds shall be spent.

The viciousness of this coercive policy was revealed in an editorial headed, "Upsidedown Government", appearing in a recent issue of the Cincinnati Enquirer and reading as follows:

"Grants-in-aid from the Federal Government supplied one-fifth of the total revenue of the 48 state governments last year, it is disclosed in a survey conducted by the Federation of Tax Administrators. Meanwhile, local governments now depend on state grants and shared taxes for about one-fifth of their revenues.

"This striking inversion of financial dependence has developed, in the main, since 1920. In the past 18 years Federal grants-in-aid to the states grew from 37 to 622 millions. Previously, the Federal Government had assisted modestly in various state undertakings such as the establishment of land grant colleges, agricultural experiment stations, state homes for soldiers and sailors, the national guard, forest reserve funds, agricultural extension work, vocational education and rehabilitation, and public health services.

"The development of the social security structure has brought about a tremendous increase in the extent to which state functions are financed federally. Federal-aid highways also have contributed to the trend of state dependence upon the national treasury, however. Highway grants, started in 1916, totaled $218,637,000 for the year 1938.

"Added to that outpouring of money from Washington to the various state capitals were the social security grants which began in 1935 and reached a volume of $266,049,000 last year. In a few years' time, it is estimated these social security grants will reach an annual volume of $500,000,000.

"It cannot be said that financial dependence of government upon government, from the bottom up, is either sound or healthy. Convenience is its chief virtue. It has wiped out most of the line of demarcation between local, state, and Federal Government, and contributed to a removal of responsibility from the immediate vicinity of the citizens. The dangers inherent in that are more considerable than the matter of temporary convenience."

Isn't it about time for the states—Ohio for example—to start running their own affairs? Federal dictation will continue so long as the states encourage and accept Federal hand-outs for services which can be and should be financed from local resources.

Advice issued by one of the newly-organized group health associations to its members: "The point is, as a member of GHA you've budgeted and paid for your medical services in advance. Thus, you need not deprive yourself of your doctor's services for financial reasons". In other words: It's a blank check, boys, and the sky's the limit.

New Bureau of Public Education Makes Safe and Sane Start

Some may wonder why the Bureau of Public Education of the Ohio State Medical Association adopted the procedure which has been followed to date in initiating its program of public education.

Such subjects as appendicitis, dangers of laxatives and self-medication, conquest of goiter through the work of Ohio physicians, value of periodic examinations, how the physician prepares himself to cope with disease, results which have been obtained through modern scientific medicine, etc., have been covered in newspaper releases and through exhibits at the State Fair.

To the average physician, these may not sound like very important or appealing subjects. He may get the impression the Bureau is wasting time and money, believing it should strike out boldly with rights and lefts on some of the serious questions which are foremost in the minds of physicians themselves. With this view we cannot agree.

In the first place, the Bureau's work has been

well received by the press generally. Articles released by the Bureau have been published in newspapers with a potential reading public of approximately 4,000,000 Ohioans. Thousands of persons viewed the Association's exhibits at the State Fair—with interest, judging from comments made.

In the second place, to succeed, the Bureau must start on a sound basis. It dare not jeopardize its status by ill-advised and undiplomatic efforts. Having gained the confidence and respect of the public and the press, later it will be in a position to launch effective and forceful programs on controversial questions.

Thirdly, the Bureau has been sensible in dealing so far with subjects which can be readily understood by the public and which are commonplace enough to have a personal appeal. Nothing falls flatter than the article or speech which is over the heads of those for whom it is intended. A recent nation-wide survey by the American Institute of Public Opinion indicates clearly the need for education of the public on the most simple matters of health. According to this poll, only 18 per cent of the laymen interviewed knew that tuberculosis is caused by a germ. Eighty-two per cent traced its cause to cold, cattle, lack of vitamins and worry. Twenty-five did not consider tuberculosis contagious; more than 50 per cent were sure that it is inherited.

Finally, we hold to the belief that the primary function of the Bureau is to give the people health facts and serve as a medium for sound health and medical advice, not as a medium for one-sided propaganda. By educating the public on fundamentals, the profession through the Bureau will be providing a real benefit for the people generally. Moreover, it will be stimulating public respect for and confidence in the profession. The reaction of the public is certain to be favorable. It cannot help but realize that the medical and health progress which has been made has taken place through "the American way"—the better and surer way.

After obtaining a sound basic education about the facts of health, the public will be able to figure out many things about the economics of medicine and health for itself. We feel the Bureau has made a good start—is following safe and sane procedure.

We are not sent into this world to do anything into which we cannot put our whole hearts. We have certain things to do for our bread, and that is to be done strenuously; other work to do for our delight, and that is to be done heartily; neither is it to be done by halves, but with a will; and what is not worth this effort is not to be done at all.—John Ruskin.

Proper Nutrition May Be Solution To Economic Problems

A preliminary survey among a group of substandard farmers in two counties in Georgia has been made by the Farm Security Administration and some significant findings have been unearthed, according to the *Southern Medical Journal*. Physical defects and diseases were more common than among draftees at the time of the World War. Diseased tonsils, decayed teeth, rickets, visual defects, hypertension, tuberculosis suspects, heart disease, malignancy and hernia were commonly encountered as we would expect.

However, a more thought-provoking finding was the result of the psychometeric examination. In 200 families, the examinations revealed, the average mental age of the adults (16 years and over) was 10 years in one county and eight years in the other. As the editor of the *Southern Medical Journal* observes:

"There is good reason to believe that some association of nutrition and mentality exists. Pellagrins in the acute stage are manical; in the sub-acute stage they have vague symptoms which may be called neurosis. Nicotinic acid can quickly relieve acute mental symptoms. It would be worth while to test the hypothesis that B vitamins are intimately concerned in mental development and that B deficiency can profoundly affect the intelligence quotient.

"Or should one take the other ground, that intelligence is largely hereditary and its potentialities are fixed at birth; that no amount of physical correction or improved diet can lift the eight-year-old adult out of the low income group? Is the Southern farmer poor because he is an eight or 10-year-old child bringing children of his own into the world of adults or just how adult is the rest of the world?"

It is our feeling that similar investigations among the low-income group on Northern farms and among industrial workers might yield similar results. Vermont is known to have as one-third of her resident population, persons who require supervision and institutional care.

The time is nearly at hand when medical men can carry on experiments in the hope of raising the intelligence of the population through proper feeding. There is a good deal of evidence already available that proper nutrition will turn the trick. Among the data is the interesting work of Pottinger in California in which he shows both in cats and in allergic children that there is a marked correlation between nutrition and mental capacity and psychic behavior. He has found that there is something which is abundant in adrenal cortex but also is found in the muscle of prime steers and in whole raw milk of cows on a proper diet which if taken regularly makes much difference. This substance is not heat stable and can easily be destroyed, and is not

present to a satisfactory degree in animals on a deficient diet.

What this country needs is not a good five-cent cigar or anyone monkeying with the machinery but someone to show us how to get a balanced diet from the foods at our disposal and then teach us to use that diet. This will do more to solve the nation's problems than all of the schemes tried so far by the New Deal and will largely put an end to the controversy of who shall give what pill to whom.

May we again repeat that a fine sense of reciprocity suggests that you patronize our advertisers, other things being equal. To our perhaps prejudiced views, other things are never equal for the non-advertiser.—The Journal of the Arkansas Medical Society.

Hefty Waist-Line Is Enemy No. 1 to Many Physicians

At a fat-chewing session recently, the assembled physicians agreed that physicians as a group ought to pay more attention to their own health. It was observed that the average gathering of physicians is hardly an inspiring sight to those who are interested in personal health and longevity. The death rate among physicians confirms this impression. Altogether too many physicians die in their prime of life from coronary diseases.

Warren B. Cooksky of Detroit has emphasized the frequency with which coronary thrombosis occurs in that group of persons who live sedentary lives as compared with active persons of the same age and he also has stressed the role that unusual exertion plays in its production among these physically unfit persons. In his Mary Scott Newbold Lecture before the Philadelphia College of Physicians, William J. Kerr pointed out the good results which he gets in the treatment of angina pectoris by the use of an elastic supporting belt which restores the function of the diaphragm. To this he adds a program of weight reduction and graduated postural exercises. The point is made that the removal of an abnormal accumulation of dead weight, placed so strategically that it hinders normal diaphragmatic excursion and the development of optimal negative intra-thoracic and positive intra-abdominal pressure, will augment coronary flow and cardiac output.

All physicians are familiar with the statistics of the insurance companies on the markedly increased tendency to hypertension and diabetes in the obese. It should be clear to all physicians that the greatest personal enemy that many of them have is their pendulous waist-line. Yet, they do little to correct it. One of the best bits of propaganda which the medical profession could offer the public at this time is to do something about the great number of physicians who die between 45 and 55 years of age from coronary disease. This can be done if each will make an attempt to stay healthy. Moderation in eating; in work and in play! These are things each physician should strive to attain in his daily life. Above all he should keep his waist-line down to normal.

Today the American people stand before the world as a nation of free men where the processes of individual initiative, freedom of thought, controlled research and independent character have placed us in the very forefront of all the peoples of the world in science, in health, in our scale of living, in recreation and in the ability to enjoy life.—Rock Sleyster, M.D.

Court Opinion Cites Basic Reasons for Professional Ethics

Representatives of the press, some laymen and even some physicians have difficulty in understanding why the Principles of Medical Ethics hold advertising and self-promotion on the part of physicians and clinics, groups, institutions, etc., as unprofessional and unethical, and detrimental to public interest.

Most members of the medical profession, obviously, know the reasons, but in attempting to set forth such reasons to the curious layman, they frequently are charged with bias or as being reactionary.

To uninformed or skeptical members of the profession and unconvinced laymen, we recommend reading of the following excerpts from an opinion handed down by the Massachusetts Supreme Judicial Court in a case contesting the constitutionality of a statute making it unlawful for dentists to advertise. The opinion skillfully and clearly presents the basic arguments against professional advertising.

In this connection it is interesting to reflect that long before statutes on such questions were thought of, the medical profession imposed self-regulatory measures on itself to safeguard the public health and welfare. The so-called code of ethics of the medical profession was promulgated to protect and for the benefit of the public; not to safeguard the interests of the physician as some erroneously believe. Statutes will be unnecessary so long as the physician respects and lives up to the code which includes all the restrictive principles found in the law, and more for good measure:

"The Commonwealth has an interest in attracting to the learned professions men of ability, capable of adorning them, and in enabling such men to survive in competition with others. It has

an interest in spreading as widely as possible among its citizens the benefit of the professional services of the most competent practitioners as distinguished from those who barely possess the minimum qualifications for beginning practice at all. It has an interest in leaving its professional men free to improve their professional qualifications, without the necessity of devoting time and effort to the competitive pursuit of clients or patients. It has an interest, too, in freeing its citizens from the pressure of salesmanship in the formation of confidential professional relations.

"The Legislature might find, and apparently did find in the case of dentists, that these public interests would be injuriously affected by free competition among practitioners without restraint as to methods. The Legislature might consider that, in general, practitioners of high character, deep learning and great skill are more conscious of vast areas of knowledge not yet explored than of the narrow fields in which they may have attained mastery; that they are restrained in speech, and careful that promise never outruns performance; and that as a class they are either incapable of advancing themselves by brazen self-laudation, or scorn resort to that means. The Legislature might conclude from human experience that practitioners of scant competence, like charlatans and demagogues, are likely to make up for want of genuine merit by an expert knowledge of mass psychology and great skill in appealing to the hopes and emotions of the uninformed and credulous. Advertising practitioners, as fast as discovery of their comparative incompetence causes the loss of clients or patients, for a long time can obtain new ones through skillful publicity. It may be that even with complete freedom in advertising, practitioners of unusual competence ultimately would succeed and others ultimately would reach the level of their merits; but in the meantime thousands if not millions of citizens might receive inferior service in the belief, induced by skillful advertising, that it was superior. Under the traditional method of professional advancement through the recommendation of satisfied clients or patients, progress may be slower, but it bears more relation to merit. The Legislature, taking the view which has been expressed, might conclude that the regulations made were for the protection of the public interests.

"The restriction and even the prohibition of advertising by members of the learned professions constitute a lawful exercise of the police power, and not, as has been contended, a violation of constitutional provisions protecting liberty and property, or discriminatory legislation. . . ."

New York Graduate Fortnight

The Twelfth Graduate Fortnight of the New York Academy of Medicine, October 23, to November 3, will be devoted to "The Endocrine Glands and Their Disorders". The program will consist of morning round-table conferences, hospital clinical programs, evening sessions and a scientific exhibit. Registration is limited to the medical profession. The fee is $5. Copy of the program can be obtained by writing Dr. Mahlon Ashford, the New York Academy of Medicine, 2 East 103 St., New York, N. Y.

Seven Hospital Service Corporations Licensed by Insurance Division

Seven group hospital service associations have been licensed to operate in Ohio by the State Superintendent of Insurance, under the provisions of Senate Bill 181, enacted at the recent session of the legislature. They are located in Cleveland, Cincinnati, Toledo, Akron, Columbus, Youngstown and Canton. Applications are being considered from associations in Newark and Portsmouth.

A temporary restraining order issued in the Franklin County Common Pleas Court on July 11 delayed operation of the act, for 10 days. On July 22, the Court dissolved that part of the order which restrained the Superintendent of Insurance from issuing licenses. At the same time the Court issued a temporary injunction preventing the Auditor of State from issuing warrants to any hospitalization corporation for public payroll deductions. Hearings will be held this Fall on two suits filed questioning the constitutionality of the act and asking for the issuance of permanent injunctions against the granting of licenses and the deduction of monthly service fees from wages of public employees.

Lima Academy Lecture Course Is Scheduled for Sept. 20

The Thirteenth Fall Lecture Course of the Academy of Medicine of Lima and Allen County will be held on Wednesday, September 20, at Memorial Hospital, Lima. Subjects to be discussed by the guest speakers, Dr. Carl Reinard Wegner and Dr. Otto Schwartz of the Department of Obstetrics, Washington University School of Medicine, St. Louis, include: early toxemias of pregnancy, late toxemias of pregnancy, Caesarean section, puerperal infection, hemorrhages, pelvic endometriosis. Dr. J. R. Tillotson is chairman of the committee in charge of the course. There will be no registration fee.

The home of Dr. Ephraim McDowell at Danville, Kentucky, has been dedicated as a state and national shrine. The house where Dr. McDowell performed the first ovariotomy operation becomes part of the Kentucky State Park system to perpetuate the memory of this pioneer Kentucky surgeon. Funds for the restoration of the home were raised by the Kentucky State Medical Association. Donors included a number of Ohio physicians. Among those who took part in the dedication ceremonies were Dr. Irvin Abell, Louisville, Ky., former president of the American Medical Association; Dr. A. T. McCormack, Louisville, state health commissioner and secretary of the Kentucky State Medical Association, and Dr. E. V. Mastin, St. Louis, Mo., great-grandson of Dr. McDowell.

Medical Disbursements by Industrial Commission During 1938 Decrease Because of General Business Slump

REFLECTING a decrease in industrial activity in 1938, fewer claims were filed by injured Ohio workmen and much less was disbursed by the State Industrial Commission for medical costs during 1938 than in 1937, according to data obtained from E. I. Evans, chief actuary for the Commission.

The number of claims filed during 1938 was 165,223, compared with 237,125 in 1937; 255,094 during the peak year—1929; and 130,099 in 1932.

"Medical only" claims (which involved payment for physician's services but no compensation) numbered 127,563 during 1938, or 77.2 per cent of the total. Average expense of the "medical only" claims increased from $7.67 in 1937 to $8.78 in 1938.

MEDICAL DISBURSEMENTS COMPARED

During 1938 the State Industrial Commission disbursed $2,892,631.07 for medical service (including a small amount for dental service); $1,182,901.78 for hospital care and nursing; $124,196.63 for funerals and $114,951.09 for courts costs; a total of $4,314,680.57 paid during the year, exclusive of compensation and death awards. These figures include payments made on claims filed by private and public employees as well as occupational disease claims.

Comparative figures for 1937 follow: $3,278,434.49 for medical service; $1,293,141.92 for hospital care and nursing; $138,734.60 for funerals and $87,756.38 for court costs, a total of $4,798,067.39.

The financial condition of the Ohio State Insurance Fund as of December 31, 1938, interesting data concerning disbursements, claim costs and rate revisions, are contained in the annual report of the actuary reading in part as follows:

STATUS OF THE FUND

"The financial statement of the Ohio State Insurance Fund at the close of 1938 carried a surplus of $1,758,858.29. During the year the surplus increased $687,044.41. The statutory surplus increased from $3,268,621.03 to $3,342,220.38.

"There was an increase in the total assets of the Fund from $55,702,909.66 to $58,350,062.66, an increase of $2,647,153.00 for the year. The reserves set aside for future payment of benefits on claims occurring prior to 1939 increased from $47,893,275.54 to $49,835,507.26, representing an increase of $1,942,231.72.

"A comparison of the premium income and losses discloses that the premium and losses for 1938 declined greatly over 1937, the decline being 27% and 26% respectively. The investment earnings developed a substantial increase for the year, due principally to collection of default interest that had accrued in earlier years. The investment earnings are from reserves for losses, therefore, are used to meet claim obligations and serve to reduce the net losses incurred.

"The only portion of the premium and investment earnings not used for claim benefits is for the expense of maintenance of the Division of Safety and Hygiene (which cannot exceed 1%), and for audits of the Fund. Such expense for the year 1938 amounted to $145,130.

"For the year 1938, 94% of the total premium earned was allocated to meet net losses incurred for claim benefits, thus leaving 6% of the earned premium to apply toward surplus and the statutory expense.

"During the year 1938 injury benefits were distributed in claims of workmen and dependents in an amount of $13,368,311. Of this amount there was paid in compensation for wage loss, $9,634,017, while fees to attending physicians, nurses, hospitals, undertakers and court costs amounted to $3,734,294. Thus 72% of the benefits disbursed was direct to claimants while 28% was for services rendered in behalf of the injured employee.

"The Fund has been in existence for over 27 years and benefits were disbursed during the year on accidents of all prior years. It will be noted that in 1938, $1,500,868 was distributed on claims of accidents that had occurred ten or more years prior to 1938. Almost two-thirds of the total distribution for the year was for accidents of prior years.

"The long extended period over which benefits are payable necessitates the setting aside of

NEW RULING ON X-RAYS

The following resolution was adopted on July 18, 1939, by the State Industrial Commission and became effective immediately:

"The payment of fees for X-rays and their interpretations will be made only to licensed physicians and dentists, and the latter only on X-rays of the teeth, mandible and maxillae.

"The Commission reserves the right to reject or refuse to pay for X-rays which are not diagnostic or do not conform to its rules on X-rays."

TABLE 1

OHIO STATE INSURANCE FUND

(Workmen's Compensation)

FINANCIAL STATEMENT AS OF DECEMBER 31, 1938

*PRIVATE FUND

Assets

BONDS AT AMORTIZED VALUES			$52,377,322.15
State Treasurer's Bond Balance	$53,172,836.49		
*Less Public Fund	2,544,355.13		
Par value of bonds		$50,628,481.36	
Amortized value over par		1,748,840.79	
All bonds are in the custody of the State Treasurer and consist of obligations of the Federal Government and Ohio taxing districts.			
CASH IN BANKS			2,215,492.90
Certificates of deposit drawing interest	$ 1,206,068.25		
Checking account without interest	1,120,765.15		
State Treasurer's balance		$ 2,326,833.40	
*Less Public Fund		111,340.50	
All deposits are in Ohio banks and are protected by depository bonds held by the State Treasurer.			
PREMIUMS IN COURSE OF COLLECTION			3,146,009.54
No premiums more than 60 days old are included.			
INTEREST ACCRUED			611,238.07
TOTAL ASSETS			$58,350,062.66

*The Ohio State Insurance Fund is separated by statute into two funds. The Private Fund covers employers in private industry while the Public Fund covers the State, municipalities and other taxing districts.

Liabilities

RESERVE FOR COMPENSATION AND MEDICAL BENEFITS	$49,835,507.26
To cover future payments on claims where the inception of the injury or disease was prior to January 1, 1939. Compensation and other benefits extend over periods of time and, in some cases, during the remainder of the life of a claimant.	
OUTSTANDING WARRANTS	276,469.73
Warrants issued for claim benefits which had not been presented for payment to the State Treasurer by December 31, 1938.	
UNEARNED PREMIUM	3,137,007.00
Advance premium paid for coverage beyond December 31, 1938.	
STATUTORY SURPLUS	3,342,220.38
To provide for catastrophe losses and other statutory contingencies. (No reinsurance is carried to cover catastrophe hazard.)	
SURPLUS	1,758,858.29
To provide for general industrial trends and non-statutory contingencies.	
TOTAL LIABILITIES AND SURPLUS	$58,350,062.66

TABLE 2

COMPARATIVE INCOME, LOSSES AND EXPENSE

Year	Earned Premium	Losses Incurred	Minus Investment Earnings	Net Losses Incurred	% of Losses to Premium	Expense
1934	$13,323,616	$13,947,276	$1,762,583	$12,184,693	91.5	$101,787
1935	11,985,744	12,588,890	1,713,539	10,875,351	90.7	119,821
1936	16,691,107	16,873,869	1,621,641	15,252,228	91.4	131,003
1937	20,531,783	21,350,784	1,336,726	20,014,058	97.5	147,863
1938	15,004,859	15,861,386	1,762,301	14,099,085	94.0	145,130

claim reserves of $49,835,507, as carried in the financial statement.

CLAIM COST

"The average cost of claims increased 1% in 1938. Medical and court costs increased 6% while the compensation cost decreased 1%. The cost of claims has shown an increase of 9% in the last ten years, the compensation cost having increased 10% while medical, hospital, funeral and court costs increased 8%.

"Many factors contribute to the increasing cost of claims. Liberalization of the statutes through legislative amendments and court interpretations as well as the trend of public opinion have been contributing factors.

"Laxity on the part of employers to cooperate in the development of facts in connection with the investigation and adjudication of claims and the increasing tendency of claimants to more strenuously exert their claims and employ others to work in their behalf has had an influence in increasing claim cost.

"Interest earnings from the investment of the claim reserves are used toward the payment of benefits, thus reducing premium income in an equal amount. There has been a marked general decline in interest rates on bonds available for investment of claim reserve funds, thus greatly reducing investment receipts and necessitating greater demand from premiums.

TABLE 3

1938 BENEFIT DISBURSEMENTS DISTRIBUTED TO YEAR OF ACCIDENT OCCURRENCE
(Excludes Occupational Disease)

Year of Accident Occurrence	Compensation	Medical	Total	%
1938	$2,209,038	$2,375,122	$ 4,584,160	34.3
1937	1,412,091	579,690	1,991,781	14.9
1936	920,496	202,469	1,122,965	8.4
1935	693,513	101,416	794,929	5.9
1934	596,778	72,916	669,694	5.0
1933	385,225	50,919	436,144	3.3
1932	536,857	51,735	588,592	4.4
1931	556,070	53,631	609,701	4.6
1930	499,839	58,072	557,911	4.2
1929	463,855	47,711	511,566	3.8
1912-1928	1,360,255	140,613	1,500,868	11.2
Total	9,634,017	3,734,294	13,368,311	100.
Percent	72.1	27.9	100.	

ADMINISTRATIVE FACILITIES

"The attention of employers is directed to the limited facilities provided for the administration of the Workmen's Compensation Law. Funds for administration are provided by appropriation of the Legislature from the General Revenue Fund.

"If the premium rates are to be kept at a minimum, it is essential that an adequate staff be maintained to provide for inspection and audit of employers' activities and records to see that proper premiums are paid; also that facilities are available for the follow-up and development of facts as to the merit of claims.

"It is possible that the employer is paying indirectly a greater cost than would be the case, even if adequate administrative cost were provided out of premiums. Facilities provided for the administration of the Ohio Fund is less than one-third of that provided in some other states with even a smaller volume of coverage.

SUMMARY OF RATE REVISION

"The annual revision of premium rates effective July 1, 1939, carries a reduction in the general level of 1.4%. The reduction is not applied generally to all classifications. Those classifications wherein the accident cost experience developed a favorable trend, carry reductions, while in those classifications where the experience developed an adverse trend, an increase in the rate has been made. There are 247 classifications in which no change in rate has been made. This represents 62% of the classifications."

Stark County Postgraduate Day

The Second Annual Postgraduate Day of the Stark County Medical Society will be held at Canton, Wednesday, October 11. Speakers will be four members of the faculty of Jefferson Medical College, Philadelphia, including Dr. George P. Muller, professor of surgery and president of the American College of Surgeons. The program follows: "The Present Status of Surgical Treatment of Peptic Ulcer", Dr. Muller; "Medical Aspects of Gallbladder Disease", Dr. Martin E. Rehfuss, professor of clinical medicine; "Recent Developments in the Treatment of Pneumonia", Dr. Hobart A. Reimann, professor of practice of medicine; "Medical and Surgical Treatment of Pelvic Disease", Dr. Brooke M. Anspach, professor of gynecology. Dr. O. R. Clovis is general chairman of the postgraduate day committee.

Student Health Officials Elect

New officers of the Ohio Student Health Association are: Dr. John D. Schonwald, Miami University, Oxford, president; Dr. John W. Wilce, Ohio State University, Columbus, vice-president; Dr. Harry Morris, Fenn College, Cleveland, Dr. R. W. Bradshaw, Oberlin College, Oberlin, and Dr. R. H. Williams, Denison Unversity, Granville, executive committeemen; Dr. John M. McCleery, Muskingum College, New Concord, secretary-treasurer.

Investigation of Industrial Commission by Citizens Tax League Continued After Initial Report to Governor

As the September issue of *The Journal* went to press, new developments in the demand made on Governor Bricker by the Citizens Tax League of Ohio for a thorough investigation of the State Industrial Commission were unpredictable.

On August 1, the league, a non-partisan citizens organization to promote good government of which S. P. Bush, retired Columbus industrialist is president, filed a statement with the Governor in which criticism was voiced regarding some of the administrative activities of the Commission.

Subsequently, according to newspaper reports, the league filed a second request with the Governor requesting him to order a grand jury investigation by the Attorney General. Also, it announced that the league will cooperate with the Columbus Bar Association in an investigation of alleged misconduct on the part of some attorneys in the handling of workmen's compensation claims and continue its own investigation. The probe by the bar association had been requested some time ago by the Commission, according to a statement issued by J. W. Beall, chairman of the Commission.

ATTITUDE OF THE GOVERNOR

In the press, Governor Bricker was quoted as stating that he would order a grand jury investigation "if the evidence warranted"; as encouraging an investigation by the Columbus Bar Association; that he would create an advisory committee to aid in a survey of the investments of the Commission and its investment policy; and that he would urge the Commission to cooperate with the league and the bar association and to do everything possible itself to correct administrative practices which might be open to criticism. The Governor did not state whether or not he would follow the suggestion of the league that he appoint an insurance executive to succeed Mr. Beall whose term on the Commission expired June 30.

In a press release issued when the matter was presented to the Governor, the league stated that an investigation should be launched to obtain answers to the following questions:

CHARGES MADE BY LEAGUE

"Why the Commission has failed to appoint an experienced casualty insurance executive to act as its general manager and put its administrative house in order as provided in Section 871-14 of the Industrial Commission Law and as recommended by three separate survey committees?

"Why the Commission has failed to act on the many other concurring recommendations of the 1934 Governor's Committee survey, the 1935 Sherrill report and the 1938 actuarial audit of Woodward & Fondiller?

"Why the Commission has failed to appoint advisory committees of investment and insurance experts as provided in Section 871-22 of the Industrial Commission Law?

"Why the Commission has failed to issue stringent rulings controlling service bureau interference and to prohibit 'ambulance chasers' from pawing through the Commission's files?

"Why the Commission still carries as fund assets, bank balances in closed banks that have been totally liquidated by the State Banking Department?"

The league demanded grand jury investigation of "circumstantial evidence which leads the league to believe that there has been collusion between employes of the commission in key positions and representatives of claimants".

The statement commended administrative improvements which have been made in the medical division under Dr. Sidney McCurdy. In a later statement, the league charged that some physicians have been submitting padded bills to the Commission and have been participating in other alleged abuses in workmen's compensation cases.

ANSWER BY COMMISSION

In a formal statement issued August 9, the Industrial Commission denied that it has failed in its administrative duties or that it is uninformed in the duties of its own office; stated the Commission is not required by law to appoint "an experienced casualty insurance executive as a general manager" and expressed doubt as to the advisability or propriety of such an appointment; enumerated 10 specific improvements which have been put into effect in its administrative procedure, based on recommendations made in reports issued after previous investigations of the Commission; pointed out that other recommendations had been rejected because their value had been questioned, while others, although meritorious, could not be put into effect because of insufficient appropriations on the part of the Legislature; pointed out that the Commission is not required by law to appoint advisory committees but has sought and has been accorded support, counsel and advice of the executive representatives of employers, workers and other organizations; declared the Commission has established and endeavored to enforce stringent rules to control racketeering and ambulance chasing, use of the files by unauthorized individuals, and other abuses, and has requested bar associations

and the courts to cooperate with it on such matters; called attention to the fact that the law makes the State Treasurer, not the Commission, the custodian of the Workmen's Compensation Fund, with the right to determine where such funds shall be deposited and the issuing of certifications of bank balances.

The statement pointed out repeatedly how the Commission has been handicapped because of inadequate appropriations for administration but that in spite of these handicaps "has succeeded over a period of 27 years in maintaining a solvent fund and in meeting its obligations". It concluded with an invitation to the Citizens Tax League to clearly define the nature and scope of the information it seeks and expressed a willingness to cooperate with all desiring to help the Commission improve the services of the department.

Status of Costly Bigelow Pension Plan In Doubt; Signatures Being Checked

As *The Journal* went to press there was some doubt as to whether or not Ohio voters will have an opportunity to pass judgment on the so-called "Bigelow" amendments at the election on November 8.

Approximately 253,000 signatures were filed with Secretary of State Earl Griffith August 8, asking that the proposed old age pension plan and liberalized method of amending the state constitution and initiating legislation be placed on the ballot at the November election. Early reports from county boards of election indicate that a considerable number of these signatures are invalid. If sufficient names are thrown out to reduce the number of accepted petitioners to below 241,787, proponents of the amendments will be given 10 days to secure the required number of valid signatures. This must be done not later than 40 days prior to the election on November 8.

The pension plan, advocated by Rev. William F. Bigelow, former congressman from Cincinnati, proposes to guarantee a pension of $50 per month to all citizens of Ohio of 60 years of age or over, retired from gainful occupation, and $40 monthly to each of a married couple living together if they meet the above qualifications.

Sponsors of the plan estimate that the yearly cost would be around $100,000,000. Opponents, pointing out that 636,000 persons would be eligible for pensions, have stated that the approximate cost to the taxpayers of Ohio for the first year would be $381,600,000, increasing to over $500,000,000 by 1960.

The proposal contemplated a two per cent tax each year on all real estate valued at $20,000 an acre or more; invalidates the ten-mill limitation on real property taxes, and provides for a state income tax on personal and corporate income equal to 25 per cent of income tax paid the Federal Government.

The second proposed amendment, sponsored by the same group, is one to limit the requirement of signatures of electors on any petition for a proposed constitutional amendment to 100,000 signatures instead of the 10 per cent of the total votes cast for Governor at the last preceding election, and to limit the requirement for a proposed initiated law to 50,000 signatures, with a provision that the proposal can be submitted directly to the voters without first being presented to the State Legislature. At present a petition to initiate a bill must carry the signatures of at least three per cent of the voters. If sufficient signatures are obtained, the bill must be considered by the Legislature. If the Legislature rejects the proposal, it may obtain a place on the ballot providing the sponsors obtain signatures of an additional three per cent of the voters of the state.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16, 1940.

American Medical Association, New York, June 10-14, 1940.

American Association for the Study of Neoplastic Diseases, Washington, D. C., Sept. 7-9.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Hot Springs, Va., Sept. 7-9.

American Association of Railway Surgeons, Chicago, Sept. 11-13.

American Clinical and Climatological Association, Saranac Lake, N. Y., Oct. 9-11.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 8-13.

American Congress of Obstetrics and Gynecology, Cleveland, Sept. 11-15.

American Congress of Physical Therapy, New York, Sept. 5-8.

American Roentgen Ray Society, Chicago, Sept. 19-22.

American Society of Anesthetists, New York, Oct. 12.

Association of American Medical Colleges, Cincinnati, Oct. 23-25.

Clinical Orthopaedic Society, Little Rock, Ark., and Oklahoma City, Oct. 13-14.

Do You Know - - -

Speakers in a symposium on fever therapy to be given during the American Congress of Physical Therapy at the Hotel Pennsylvania, New York, September 5-8, will include Dr. Herbert W. Kendell, Dayton, and Drs. Walter M. Solomon and Robert M. Stecher, Cleveland.

* * *

Dr. Edward E. Woldman, Cleveland, is a vice president of the American Physician's Art Association.

* * *

A new high point of 61.94 years for the expectation of life at birth for industrial policyholders of the Metropolitan Life Insurance Company was reached in 1938 as a result of the unusually favorable mortality conditions prevailing during that year, according to the *Statistical Bulletin.*

* * *

During the fiscal year ended June 30, 1938, there were 2,748 deliveries without a maternal death in the Chicago Lying-In Hospital of the University of Chicago. In 571 deliveries by the hospital's home service, there was but one death.

* * *

Twenty-two years ago Dr. A. S. McKitrick, now practicing in Elyria, took care of a boy who was injured in an automobile accident. His father could not pay for the services at that time. Recently Dr. McKitrick received a check for $50 from the boy's father apologizing for the delay but expressing his happiness at now being able to pay his bills—"believe-it-or-not".

* * *

"Factual Data on Medical Economics" and "Organized Payments for Medical Services", recent publications of the Bureau of Medical Economics of the American Medical Association, should be in every physician's library. Copies at fifty cents each can be obtained from the A.M.A., 535 N. Dearborn St., Chicago, Ill.

* * *

The State Industrial Commission recently held that there is no provision in the Workmen's Compensation Act for the replacement of an artificial eye.

* * *

Ohio motorists during 1938 paid $73,072,000 in gasoline taxes, drivers' and automobile license fees and other state imposts. Of this, $12,266,000, or 16.8 per cent was used for non-highway purposes. Ohio's collection amounted to 6.25 per cent of the nation's total of $1,175,202,000.

* * *

Dr. Bernard H. Nichols, Cleveland, president of the Radiological Society of North America, recently presented a new microscope to the Portage County Robinson Memorial Hospital, in memory of his wife, Myrtle Ruth Nichols, who died May 18.

* * *

A new, all-metal cabin airplane has been purchased by Dr. M. C. Oakes, Lexington, and Dr. M. S. Reed, Mansfield.

* * *

Governor John W. Bricker recently received a new request for relief—for hayfever sufferers. A northwestern Ohio citizen suggested that the state "harvest" its crop of ragweed. The request was referred to the state health and highway departments.

* * *

J. W. Raper in his column "Most Anything" in the Cleveland Press comments, "Columbus Dispatch says four naprapaths, nine mechanotherapists, four chiropractors, 14 osteopaths, 36 chiropodists, four cosmetic therapists and 23 masseurs passed the State Medical Board examination. How about piano tuners?"

* * *

Hanging out the same shingle which his grandfather used many years ago, Dr. J. A. Brown recently opened an office for the practice of medicine in Morristown, Belmont County.

* * *

Members of the faculty of Ohio State University retired September 1 with emeritus rank include two from the College of Medicine: Dr. Elmer G. Horton, professor of medicine, and Dr. John B. Alcorn, assistant professor of ophthalmology. Dr. Horton served on the faculty for 37 years and Dr. Alcorn for 25 years.

* * *

Dr. Harry Goldblatt, professor of experimental pathology and associate director of the Institute of Pathology at Western Reserve University School of Medicine has been awarded the Alvarenga prize for 1939 by the American College of Physicians.

* * *

Mrs. Laura B. Platter, wife of Dr. Herbert M. Platter, secretary of the State Medical Board, died at her home in Columbus, August 3.

* * *

Officers of the Cleveland Allergy Society are Dr. Leonard H. Harris, Elyria, president; Dr. Jonathan Forman, Columbus, vice president, and Dr. I. M. Hinnant, Cleveland, secretary-treasurer.

* * *

Civil employees of the Federal Government numbered 925,260 in June, the highest point in history. The war-time peak was 918,000.

Medical Board Entrance Examiner Issues Regulations on Preliminary Education Under Terms of S. B. 97

A SET of interpretations and regulations pertaining to the preliminary education which will be required of medical and osteopathic applicants for admission to the examinations given by the State Medical Board and applicants for licenses through reciprocity, under the provisions of amendments to the Medical Practice Act (Senate Bill 97) enacted at the recent regular session of the Ohio General Assembly, have been compiled by the Entrance Examiner, and have the approval of the Board.

The Medical Practice Act amendments became effective July 25, 1939. The most important are those which require all applicants for medical and surgical and osteopathic and surgical licenses in Ohio through examination, or through reciprocity without examination, to show evidence of "two years of collegiate work in an approved college of arts and sciences in addition to high school graduation".

All applications now pending and those received in the future will be analyzed and evaluated in the light of the following interpretations and regulations formulated by the Entrance Examiner, applying to applications filed by graduates of both American and foreign schools:

APPROVED COLLEGES

"Pursuant to Section 1270, General Code of Ohio, as amended effective July, 1939, 'an approved college of arts and sciences' as therein set forth shall be understood to be those approved colleges of arts and sciences and junior colleges approved by the regional associations named below or by the Association of American Universities:

"North Central Association of Colleges and Secondary Schools,

"Middle States Association of Colleges and Secondary Schools,

"New England Association of Colleges and Secondary Schools,

"Southern Association of Colleges and Secondary Schools, and

"Northwest Association of Secondary and Higher Schools.

"Since 1915, the Council on Medical Education and Hospitals of the American Medical Association has published lists of such approved colleges of arts and sciences and junior colleges as a guide to medical schools in the selection of students and also to assist the prospective medical student in choosing a college for his premedical training.

STANDARDS FOR APPROVED COLLEGES

"The term 'college' as used above and hereafter is understood to designate institutions of non-professional higher education which grant bachelor's degrees, except that a junior college shall be understood to be an institution of higher education which gives two years of work equivalent in prerequisites, scope, and thoroughness to the work done in the first two years of a college as herein defined.

"A college should demand for admission the satisfactory completion of a four-year course in a secondary school approved by a recognized accrediting agency or the equivalent of such a course.

"A college should also measure up fully to the standards adopted by the Association of American Universities or those of the foregoing regional associations such as the requirements for graduation, the preparation of students for graduate work in at least seven departments, the proper training of teachers, the teaching schedules, the financial status, its material equipment, its library, and the general tone of the institution.

Section 1278, State Medical Practice Act.—"Every person who receives a certificate to practice medicine or surgery, before beginning practice, must deposit his certificate with the probate judge of the county in which he resides. . . . If the owner of a certificate changes his place of residence, he must have such certificate recorded by the probate judge of the county into which he removes".

COLLEGE CREDIT

"Two years of collegiate work as set forth in Section 1270, General Code of Ohio, shall be understood to be the successful completion of sixty semester (or ninety quarter) hours of credit from a college as herein defined.

"It is to be understood that credits are accepted only from institutions that were approved at the time such credits were earned.

"The right is also hereby reserved by the Entrance Examiner to evaluate on their merits credits from American and Canadian institutions not approved by any of the five regional associations or by the Association of American Universities.

CREDIT BY EXAMINATION

"Pursuant further to Section 1270, General Code of Ohio, the sentence 'In the absence of

the foregoing qualifications, the Entrance Examiner may examine the applicant to overcome deficiencies' shall be applied in accordance with the practice of the Council on Medical Education and Hospitals of the American Medical Association, amended to read as follows:

"Candidates who have presented evidence of scholarship of a high order and who are deficient in not more than twenty semester hours of the required two years of college credit for the preliminary certificate, may take examinations as determined by the Entrance Examiner to overcome such deficiencies.

"It is to be noticed that according to the practice of the above Council on Medical Education and Hospitals concerning admission to medical colleges, examinations are given only after a minimum of two years of credit in approved colleges is obtained and then such examinations are given only for making up deficiencies in required subjects and even then only after the applicant has given evidence of scholarship of a high order.

LIST OF APPROVED COLLEGES

"This list, numbering considerably over seven hundred approved colleges of arts and sciences and junior colleges in the United States, Canada, Alaska, and Hawaii, may be obtained upon request."

Congress on Obstetrics and Gynecology To Draw Large Attendance

Approximately 2,000 persons have registered for the first American Congress on Obstetrics and Gynecology which will be held in Cleveland, September 11-15, with headquarters in the Hotel Cleveland. The meeting is sponsored by the American Committees of Maternal Welfare, which includes in its membership the Section on Obstetrics and Gynecology of the American Medical Association; American Association of Obstetricians, Gynecologists and Abdominal Surgeons; American College of Surgeons, and a number of other professional and governmental organizations. The program of the Section of Medicine, which was published in full in the August issue of *The Ohio State Medical Journal*, pages 885-887, includes formal papers, round-table conferences and scientific and technical exhibits. Membership fee is $5, which covers registration at the Congress and a year's membership in the American Committee on Maternal Welfare. Applications should be addressed to the Headquarters Office, 650 Rush St., Chicago, Ill.

Columbus—Dr. Robert E. S. Young, who ranked first in a civil service examination for the post, was recently appointed police surgeon.



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In Memoriam

David Henry Braden, M.D., Wooster; Cleveland University of Medicine and Surgery, Homeopathic, 1895; aged 71; died August 13. A native of Ashland County, Dr. Braden practiced in Wooster for many years. During his later years he owned a number of running horses and was widely known among the horsemen of the state. His widow, a daughter and two sons survive.

Charles Cunningham Campbell, M.D., Youngstown; University of Pittsburgh School of Medicine, 1896; aged 73; died July 14. Dr. Campbell practiced in Greenville, Pa., until 17 years ago, when he went to Youngstown. His widow, two sisters and two brothers survive.

Thomas Taylor Cosgrove, M.D., Sylvania; Northwestern Ohio Medical College, Toledo, 1888; aged 79; died July 29. The son of a physician, Dr. Cosgrove practiced in Sylvania for 51 years. Survivors are his widow, two sons, one of whom is Dr. Kenneth R. Cosgrove, Sylvania, and a brother.

Colston L. Dine, M.D., Minster; Medical College of Ohio, Cincinnati, 1886; aged 81; former member of the Ohio State Medical Association and the American Medical Association; died August 1. Dr. Dine retired in January, 1938, after 53 years in the practice of medicine. He was a former president of the Auglaize County Medical Society, and was also active in civic, industrial and church affairs. Dr. Dine was a member of the Catholic Church and the Knights of Columbus. Surviving are his widow, six daughters and three sons.

Robert Sweney Dombaugh, M.D., Marion; Columbus Medical College, 1891; aged 71; member of the Ohio State Medical Association and the American Medical Association; died July 1. Dr. Dombaugh's 48 years as a physician included service as a lieutenant in the Medical Corps of the U. S. Army during the World War. He practiced in Waldo for 21 years, and from 1912 to 1916 was Marion County treasurer. Shortly thereafter he opened an office in Marion. Dr. Dombaugh was a member of the Evangelical and Reformed Church, the Masonic Order and the American Legion. A daughter, a son and a brother survive.

William H. Emery, M.D., Lorain; Toledo Medical College, 1898; aged 66; died July 19. Dr. Emery located in Lorain after having practiced 15 years in Akron. During the Spanish-American War he was in the Medical Corps of the Sixth Ohio Volunteer Infantry, and later was active in the United Spanish-American War Veterans and affiliated organizations. Dr. Emery was a member of the Masonic Order and the Veterans of Foreign Wars. His widow, a daughter, two sons, a sister and a brother survive.

Elmer Newkirk Funk, M.D., Shreve; Starling Medical College, Columbus, 1903; aged 60; member of the Ohio State Medical Association and Fellow of the American Medical Association; died July 18. Dr. Funk practiced in Shreve and Wayne County for 36 years. His mother and a foster daughter survive.

William Henry Hinklin, M.D., Marion; Eclectic Medical College, Cincinnati, 1891; aged 82; died July 27. Dr. Hinklin practiced in Marion for 34 years. He had been previously located in Forest, LaRue and Chicago, Ill. Dr. Hinklin was coroner of Marion County for six years. He was a member of the Masonic Order and the Methodist Church. Surviving are four daughters and a son.

Albert E. Hussey, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1901; aged 60; died August 1. Dr. Hussey retired in January, 1938, after 16 years on the medical staff of the U. S. Veterans' Bureau and 21 years in private practice. His widow and a sister survive.

Robert Lee Kunkle, M.D., Piqua; Ohio Medical University, Columbus, 1902; aged 63; member of the Ohio State Medical Association and the American Medical Association; died August 2. A former city health commissioner, Dr. Kunkle practiced in Piqua for 37 years. During the World War he was a lieutenant in the Medical Corps of the U. S. Army. Dr. Kunkle was a member of the Masonic Order, the B.P.O.E., Presbyterian Church and the American Legion. Surviving are his widow and two sisters.

George W. Moorehouse, M.D., Cleveland; Harvard University Medical School, Boston, 1897; aged 72; former member of the Ohio State Medical Association and the American Medical Association; died July 14. Dr. Moorehouse served in the Cleveland health department for 25 years, having been superintendent of the Warrensville Sanitarium and chief of the bureau of communicable diseases. His widow, a daughter and a son survive.

Ellis Brown Rhodes, M.D., Cleveland; Western Reserve University School of Medicine, Cleveland, 1897; aged 67; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 7. An active practitioner for 42 years, Dr. Rhodes was a member of the Presbyterian Church and a charter member of the Mayfield Country Club. Photog-

CANNED FOODS AND HUMAN ENERGY REQUIREMENTS

● An adequate supply of food energy is one of a number of nutrient requirements of man. Fortunately, all nutrients—with the exception of water, minerals and accessory factors—supply chemical energy which the body can utilize to support muscular activity and life processes. Individual foods will, however, vary in the extent to which they supply food energy.

The energy requirements of man and the caloric values of foods have long been fields of active investigation. Energy requirements are measured in terms of a heat unit, the calorie. Many researches (1) show that human caloric requirements are variable and influenced by a number of factors.

During periods such as infancy, childhood, pregnancy and lactation, or during convalescence from wasting illness, energy-yielding nutrients are required both for support of body activity and for tissue formation. However, for the average adult, food energy intake should balance energy expenditure. For adults, variation in activity is the chief factor influencing variation in energy requirement; age, sex, size and body build being comparable. Sedentary occupations may require a food energy intake of 2500 calories per day; 5000 calories might be necessary if the individual engaged in strenuous muscular activity. Close approximations are available for the probable food energy requirements of individuals during different stages of the life cycle and engaged in various activities (1, 2).

Experiments (3) have also demonstrated that oxidation of foodstuffs in the animal body—due allowance being made for the energy contents of the end-products of oxidation—yields the same number of calories as are produced by the oxidation of similar foodstuffs in the combustion type calorimeter. Since the potential food energy of foodstuffs resides in their contents of carbohydrates, fats and proteins, the available calorific value of any food may be readily calculated (4) by using the factors 4, 9 and 4 calories per gram of these respective nutrients. Of these food components, the carbohydrates and fats are those which contribute most towards attainment of our varied, food energy requirements. Reliable tables are available (5) which list the calorific contributions of most common foods.

It has been established first, that foods—principally by virtue of their carbohydrate and fat contents—contribute energy for use by the human body; and second, that the human energy requirement is conditioned by many factors and may vary widely. An adequate supply of food energy is, of course, one of the necessary objectives of proper nutrition. However, individual attributes such as vitality, strength or endurance are influenced by—but not solely dependent on—proper nutrition, in which adequate food energy is supplied.

The food energy values of commercially canned foods are essentially those of the raw materials from which they are prepared. In some instances, the natural caloric values of the raw foods may have been enhanced by the medium in which they were packed, for example, carbohydrate-bearing syrups or sauces used in the canning procedure. Consequently, since canned foods include products of both high and low caloric intakes, such foods are valuable in formulating diets to supply any intake of food energy which might be desired.

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1. 1938. Nutrition Abstracts and Review. 7, 509.
2. 1933. U. S. Dept. Agr. Circular No. 296.
3. 1931. The Elements of the Science of Nutrition, Fourth Edition, Graham Lusk, Saunders Co., Philadelphia, pp. 61-74.
4. 1938. Chemistry of Food and Nutrition, Fifth Edition, Henry C. Sherman, Macmillan Co., New York, pp. 150.
5. 1931. U. S. Dept. Agr. Circular No. 146.
1931. U. S. Dept. Agr. Circular No. 50.
1935. Dietetics for the Clinician, Second Edition, M. A. Bridges, Lea & Febiger, Philadelphia.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-first in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



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raphy was one of his hobbies. Surviving are his widow, and a daughter.

William Staughton Snow, M.D., Middletown; Pulte Medical College, Cincinnati, 1896; aged 67; former member of the Ohio State Medical Association and the American Medical Association; died July 28. Dr. Snow practiced in Middletown for 22 years and for 15 years in Monroe. He was a member of the Knights of Pythias, I.O.O.F., and the Baptist Church. Surviving are his widow and two sisters.

Charles John Wood, M.D., Genoa; St. Louis University School of Medicine, 1933; aged 36; member of the Ohio State Medical Association and the American Medical Association; died July 10. A native of Genoa, Dr. Wood had practiced there for five years. He was a member of the Catholic Church. His parents survive.

Oliver James Wood, M.D., Cleves; Miami Medical College, Cincinnati, 1883; aged 88; died August 8. Dr. Wood retired four years ago after having practiced in Cleves for 52 years. He had served as president of the Hamilton County Board of Health and was a former president of the Cleves-North Bend Board of Education. Dr. Wood was a past master of the Columbia Lodge of Masons, Miamitown, a charter member of the local chapter of the Order of Eastern Star, and one of the oldest members of the Junior Order United American Mechanics in Hamilton County. A daughter and a son survive.

Appropriations for Medical and Health Services Hiked by Congress

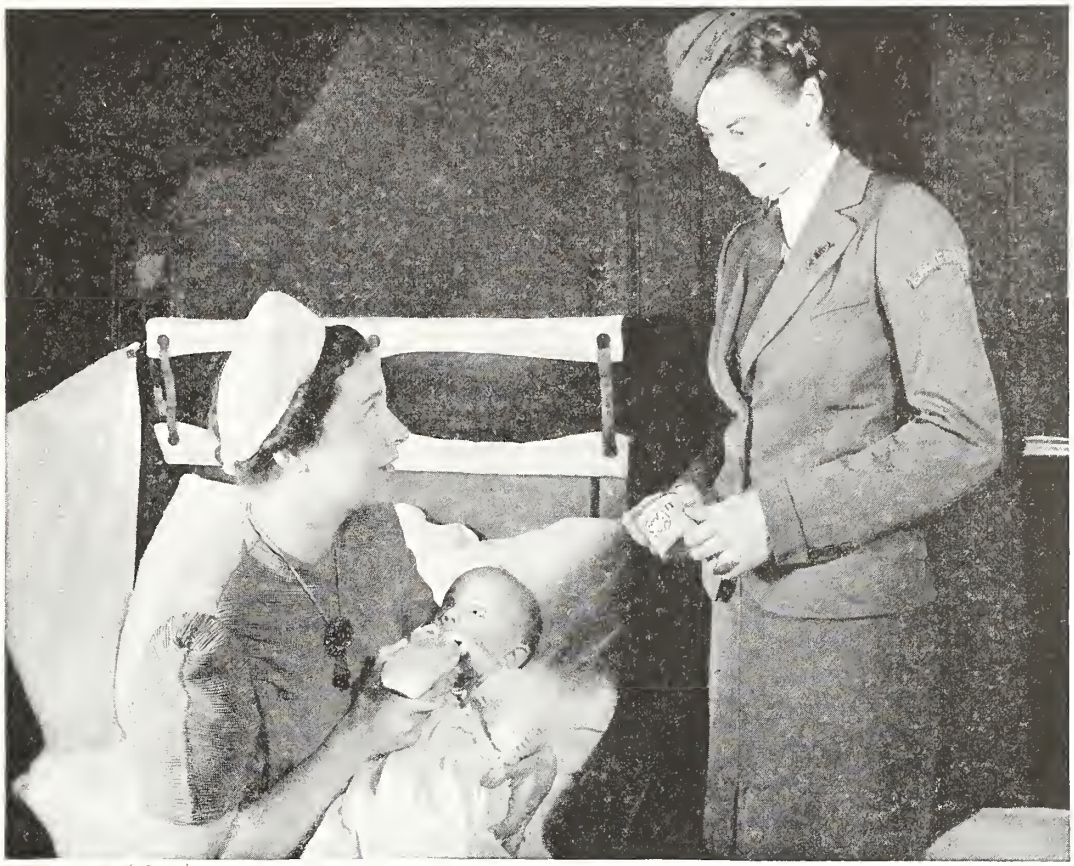
H. R. 6635, amending the Social Security Act, as passed in the closing days of the recent session of the Congress, authorizes an increase in appropriations for maternal and child health services and services for crippled children, under the supervision and control of the U. S. Children's Bureau, and in appropriations for public health activities, under the supervision and control of the U. S. Public Health Service.

The new act appropriates $5,820,000 yearly for maternal and child health service, partly on a 50-50 matching basis with the states and partly as an outright grant. The amount appropriated for aid to needy crippled children is $3,378,000, to be distributed partly on a matching basis with the states, and partly as outright grants based on the need of each state. The new grant for public health is $12,000,000, up 50 percent from last year. Allotments are made the various states on a 50-50 matching basis.

Toledo—Dr. A. P. R. James spoke on "The Treatment of Syphilis" at a recent meeting of the Exchange Club.

Licensed Through Reciprocity

The State Medical Board has granted the following physicians licenses to practice medicine and surgery in Ohio, through reciprocity with other states: Dr. Charles A. Anderson, Cleveland, University of Edinburgh; Dr. George K. Anderson, University of Rochester, Cincinnati; Dr. Robert M. Bartlett, Akron, University of Michigan; Dr. Robert S. Bolin, Washington C. H., University of Chicago; Dr. John A. Brown, Morristown, University of Louisville; Dr. Bertie M. Burrowes, Youngstown, Howard University; Dr. Giovanni P. Carlotti, Bethesda, University of Rome; Dr. Robert R. Crawford, Mansfield, University of Chicago; Dr. William H. Dufendock, Genoa, University of Louisville; Dr. Gwilyn A. Edwards, Van Wert, Vanderbilt University; Dr. Lyle C. Franz, Ripley, University of Louisville; Dr. William McK. German, Cincinnati, University of Michigan; Dr. Norvell L. Haislip, Martins Ferry, Harvard University; Dr. Morton Hamburger, Jr., Cincinnati, Johns Hopkins University; Dr. Max A. Hammel, Columbus, University of Kansas; Dr. Robert E. Hannon, East Cleveland, St. Louis University; Dr. Frank S. Harkleroad, Hillsboro, University of Tennessee; Dr. Richard F. Hauck, Ottawa, Emory University; Dr. Harold J. Hertz, Cleveland, Wayne University; Dr. Rudolf F. Hoffman, Lima, University of Munich; Dr. Ervin H. Holvey, Sandusky, Marquette University; Dr. Fred A. Jordan, Jr., Steubenville, University of Buffalo; Dr. Marcel T. Kahn, Defiance, University of Rome; Dr. Edward B. Laboe, Lima, University of Michigan; Dr. Herbert C. Leiter, Toledo, University of Vienna; Dr. Harold H. Macumber, Cleveland, University of Nebraska; Dr. Marcus J. Magnussen, Clinton, University of Iowa; Dr. John T. McGreer, Jr., Dayton, University of Nebraska; Dr. Jay McLean, Columbus, Johns Hopkins University; Dr. Edw. J. Nestley, Cincinnati, Eclectic Medical College, Cincinnati; Dr. Robert J. Sating, Cleveland, St. Louis University; Dr. Albert Selfman, Mansfield, Vanderbilt University; Dr. Harvey W. Sigmond, Jr., Columbus, Northwestern University; Dr. Birna R. Smith, Eaton, Indiana University; Dr. Ernst Speyer, Lorain, University of Frankfurt; Dr. Charles V. Stark, Roundhead, Tennessee Medical College; Dr. John J. Thornton, Cleveland, Harvard University; Dr. Alvin J. Tight, Sandusky, St. Louis University; Dr. Emmerich von Haam, Columbus, University of Vienna; Dr. Stewart C. Wagoner, Cincinnati, University of Pennsylvania; Dr. Charles J. Wasmer, Cincinnati, Emory University; Dr. Clarence R. Weber, Cleveland, University of Nebraska; Dr. John E. Williams, Cleveland, University of Michigan; Dr. Rowland D. Wolfe, Columbus, George Washington University.





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Advisory Council on Medical Education, To Act as Clearing House, Formed

Dr. Willard C. Rappleye, dean of the Faculty of Medicine of Columbia University, is the president of the Advisory Council on Medical Education organized at a meeting in Chicago, June 24. Other officers are: Dr. Maurice H. Rees, dean of the School of Medicine of the University of Colorado, vice president; and Dr. Robin C. Buerki, director of Study of the Commission on Graduate Medical Education, secretary-treasurer.

According to the constitution and by-laws, the purpose of this council is "to meet the need of a central agency representing the universities, medical schools, hospitals, licensing bodies, specialty boards, public health agencies, and other national organizations which deal with different phases of medical attention". The by-laws further provide that: "The council shall serve as a clearing house for the cooperative consideration of those problems and programs of professional training with which more than one group is concerned; as a medium for consultation and mutual assistance in the formulation and support of adequate educational standards; and as an agency for advice and recommendations to members and other organizations dealing with medical education". The council's main responsibility is in the field of medical education.

The organizations having membership and their number of representatives follow: Association of American Medical Colleges, 3; American Hospital Association, 3; Catholic Hospital Association, 1; Federation of State Medical Boards, 3; Advisory Board for Medical Specialties, 3; National Board of Medical Examiners, 1; American College of Physicians, 2; American College of Surgeons, 2; Association of American Universities, 2; American Public Health Association, 1; American Association for the Advancement of Science (Medical Section), 1. The present membership totals 22.

Trips To the Altar

Recent marriages of Ohio physicians include: Miss Dorothy Solt and Dr. George W. Yauger, Dayton; Miss Grace Null, St. Louis, Mo., and Dr. Henry E. Hengen, New Riegel; Miss Aleen Hughes, Mansfield, and Dr. Howard B. Peck, Cleveland; Miss Sylvia O. Bausch and Dr. Lee H. Brown, Hamilton; Miss Frances Ford and Dr. Harry L. Fry, Pleasant Ridge; Miss Dorothy Yarbrough and Dr. Densmore Thomas, Niles; Miss Maxine Louise Price, Youngstown, and Dr. Ralph J. Starbuck, Salem; Miss Lucille Gaylord, Baltimore, Md., and Dr. D. G. Ralston, McConnelsville; Miss Bess Sisman and Dr. Philip B. Giber, Defiance; Miss Dorothy Margaret Lockwood, Steubenville, and Dr. William J. Tenfel, Jr., Cleveland.

Cincinnati—Dr. Emil R. Swepston, Dr. Floyd P. Allen and Dr. Samuel Goldblatt were the speakers at a recent meeting of the Central Parkway Y.M.C.A.

Springfield—Dr. Frank C. Andrus, pathologist at City Hospital, has resigned to accept the position of director of laboratories at Minneapolis General Hospital and instructor in pathology at the University of Minnesota Medical School.

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(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

A meeting of the Adams County Medical Society was held at the Court House, West Union, Wednesday, August 16, beginning at 10:30 A.M. Following a business session and a report by the legislative committeeman, Dr. S. J. Ellison, West Union, a talk was given by Dr. W. T. LaNeave, Peebles, on "Fractures of Extremities". Dr. O. T. Sproull, West Union, was the discussant. During the noon hour members of the society were entertained at the Hooper Home Hotel by Dr. William L. Faul, Sr., Russellville, and Dr. William L. Faul, Jr., Georgetown. The afternoon program consisted of an address by Dr. Cyril E. Schrimpf, Cincinnati, on "Some Eye Conditions", discussed by Dr. Faul, Jr., and an explanation of the new Ohio Poor Relief Act by Dr. Otto K. Engelke, West Union.—O. T. Sproull, M.D., secretary.

HIGHLAND

Dr. Harold M. Crumley, Chillicothe, spoke on "The Preparation and Post-Operative Care of Surgical Patients", at a meeting of the Highland County Medical Society, Wednesday, August 4, at the Highland House, Hillsboro.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

An instructive lecture on "The Diagnosis and Management of Disorders of the Feet" was given by Dr. Jerome Hartman, Dayton, at a meeting of the Greene County Medical Society, August 3, at Xenia. Announcement was made of the Second Course of the Ohio State Medical Association Regional Postgraduate Lectures, beginning at Troy, September 28.—Donald F. Kyle, M.D., secretary.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

OTTAWA

Dr. J. A. H. Magoun, Toledo, spoke on "Infections of the Urinary Tract", at a meeting of the Ottawa County Medical Society, Thursday evening, July 27, at Marshall's Inn, Oak Harbor.—News clipping.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Members of the Mahoning County Medical Society held their annual outing at the Southern Hill Country Club, Youngstown, Thursday, July 20. Dr. William A. Welsh, won the low gross prize in golf, and Dr. L. G. Coe the low net. The pingpong tournament was won by Dr. Hodgen, with Dr. Ray A. Hall runner-up. Door prizes were awarded to Drs. John Noll and Woodrow S. Hazel. Winners in the after-dinner events were not announced. Dr. Dean A. Nesbit was general chairman of the committee which arranged the frolic. Dr. E. J. Wenaas and Dr. Welsh had charge of golf and Dr. Wenaas awarded the prizes. The pingpong contest was conducted by Dr. John A. Rogers, and Dr. Clarence Steganski arranged the dinner.—Bulletin.

SUMMIT

Dr. C. F. Wharton won the annual golf tournament of the Summit County Medical Society, at Congress Lake, Wednesday, July 28, with a low gross score of 77. A three-time winner, Dr. Wharton received the permanent trophy, the President's Cup, donated by Dr. D. B. Lowe, and also the Brennan Bowl, offered by Dr. D. C. Brennan, which must be won eight times in succession for permanent possession. Mrs. Brennan won low gross honors in the women's tournament. Dr. P. C. Doran was chairman of the men's committee for the outing, and Mrs. A. S. McCormick, wife of the society's secretary, headed the women's committee.—News clipping.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

TUSCARAWAS

Dr. M. E. Rowland gave a garden party for the members of the Tuscarawas County Medical Society and their wives, Wednesday, August 16, at the residence of her uncle, Dr. V. Heck, Gnadenhutten. Judge J. H. Lamneck spoke on "The Etiology, Prophylaxis and Treatment of Juvenile Delinquency".—James A. McCollam M.D., correspondent for *The Journal*.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

WASHINGTON

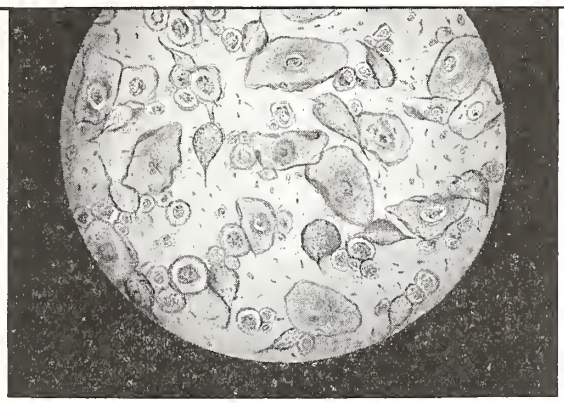
"Cancer" was the subject discussed by Dr. Edward Reinert and Dr. Jay McClean, Columbus, at a meeting of the Washington County Medical Society, Wednesday evening, August 9, at the Hotel Wakefield, Marietta, with 21 members present.—News clipping.

GUERNSEY

Rev. Leland M. Miller, pastor of the Second United Presbyterian Church, Cambridge, was the speaker at a luncheon meeting of the Guernsey County Medical Society, Thursday aft-

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ernoon, August 3, at the Berwick Hotel, Cambridge.—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

RICHLAND

"Clinical Use of Vitamin K and Treatment of Hemorrhagic Tendency in Jaundice", was the subject discussed by Dr. Robert Moore, professor of pathology, Washington University School of Medicine, St. Louis, at a dinner meeting of the Richland County Medical Society, Friday evening, July 28, at Mansfield General Hospital.

The annual fishing attempt of the society was held "somewhere in Lake Erie", Thursday, August 24.—L. D. Bonar, M.D., secretary.

Open New Offices

Among physicians who have recently opened new offices in Ohio are the following: Dr. R. A. Blackman, Norwalk; Dr. Howard Foster, Gallipolis; Dr. E. R. Torrence, Troy; Dr. John J. Kearney, Piqua; Dr. John D. LeFevre, Springfield; Dr. A. W. Norris, Bellevue; Dr. William A. Schroer, Ft. Loramie; Dr. Alvin J. Tight, Sandusky; Dr. G. F. Jones, Friendship; Dr. Wm. Terwilleger, Mariemont; Dr. Fred P. Kapke, Troy; Dr. D. H. McCall, Otway; Dr. John H. Thomas, Columbiana; Dr. Arthur H. Spreen, Cheviot; Dr. Harry E. Shilling, Troy; Dr. J. A. MacZuga, Roseville; Dr. Louis Goldstein, St. Paris; Dr. Clovis J. Altmaier, Marion; Dr. P. P. Palsis, Milan; Dr. Duane D. Love, Sandusky; Dr. W. P. Johnson, Somerton; Dr. Robert Maurer, Norwalk; Dr. J. F. Rudy, Ada; Dr. John E. Schoenling, Cincinnati; Dr. Forest Hunter, Wapakoneta.

Eleventh District Meeting September 13

A "get-acquainted meeting" of the physicians in the new Eleventh Councilor District will be held at the Spring Valley Country Club, Elyria, Wednesday, September 13. A golf tournament in the afternoon will be followed by dinner at the Club. Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, will be the principal speaker. The meeting is being sponsored by the Lorain County Medical Society, and Dr. L. H. Trufant, Oberlin, secretary of the society is in charge of arrangements.

Dr. E. M. Huston, Dayton, former president of for Ohio State Medical Association, has been named a member of the board of control of the Ohio State Safety Council.

* * *

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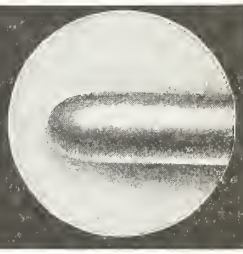
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Waiver of Physician-Patient Privilege Is Subject of Interesting Case Comment Published in "Ohio Bar"

EVERY physician is a potential witness. For that reason, all physicians will be interested in the following "case comment", prepared by the Board of Editors of the Ohio State University Law Journal and published in a recent issue of *Ohio Bar Association Report*, dealing with the waiver of physician-patient privilege under Section 11494, Ohio General Code:

* * *

Plaintiff sued for damages for personal injuries. At the trial, on direct examination, he testified that his general physical condition had been good previous to the accident in which the injuries were allegedly sustained. It was held that this voluntary testimony did not constitute a waiver of the physician-patient privilege given in Section 11494, Ohio General Code. Consequently, a physician who had been called to controvert the fact put in issue by plaintiff concerning plaintiff's physical condition before the accident was not permitted to testify. It was also held that testimony given by plaintiff on cross-examination in response to questions was not voluntary within the meaning of the statute and so did not constitute a waiver although the doctor and the treatment received had been mentioned. Harpman v. Devine, 133 Ohio St., 1 (1937).

CHANGING TENDENCY

To effect a satisfactory disposition of cases according to their merit it may be assumed that all relevant evidence should be admissible. In addition, if this were the only objective or consideration, all persons should be under a duty to disclose all relevant facts. However, when the benefits derived by society through enforcing this duty and permitting testimony concerning all relevant facts are outweighed by the harmful effects such testimony may have, then the evidence may be excluded.

The old common law excluded much evidence, otherwise relevant, on such grounds as incompetency or privilege of witnesses, prejudice of the defendant, confusion of the jury, or untrustworthiness of the testimony. In the last fifty years it has been increasingly apparent that the harm caused by the admission of this testimony is not as real as was originally supposed. Consequently there has been a growing tendency to construe these exclusionary rules strictly and thus to let in more and more relevant evidence.

FACTORS ARE DIFFERENT

One of these exclusionary rules, that of privileges, was designed to foster freedom of disclosure in certain relationships such as lawyer and client. The common law has always recognized a privilege in the lawyer-client relationship. Skilled men are necessary in lawsuits and must be fully informed if they are to adequately represent their clients. A client might not talk freely to his lawyer if he thought the latter could be compelled to disclose in a court of law those facts that had been communicated to him. With this in mind the apprehension of the client is removed by the lawyer-client privilege.

Although this same reasoning is advanced in favor of the physician-patient privilege yet the influencing factors are not so apparent. It is somewhat difficult to imagine an individual in a diseased or injured condition and at the same time refraining from seeking medical attention for fear of later disclosure in a court of law of the information he would have to divulge to his physician. Consultation with a physician is far removed, in most cases, from a court of law. On the other hand, it is equally difficult to perceive a situation where an individual in consultation with an attorney is not, in some degree, thinking in terms of a court room and hence conscious, at that time, of what might there be revealed. Accordingly, in that aspect at least, the benefit to

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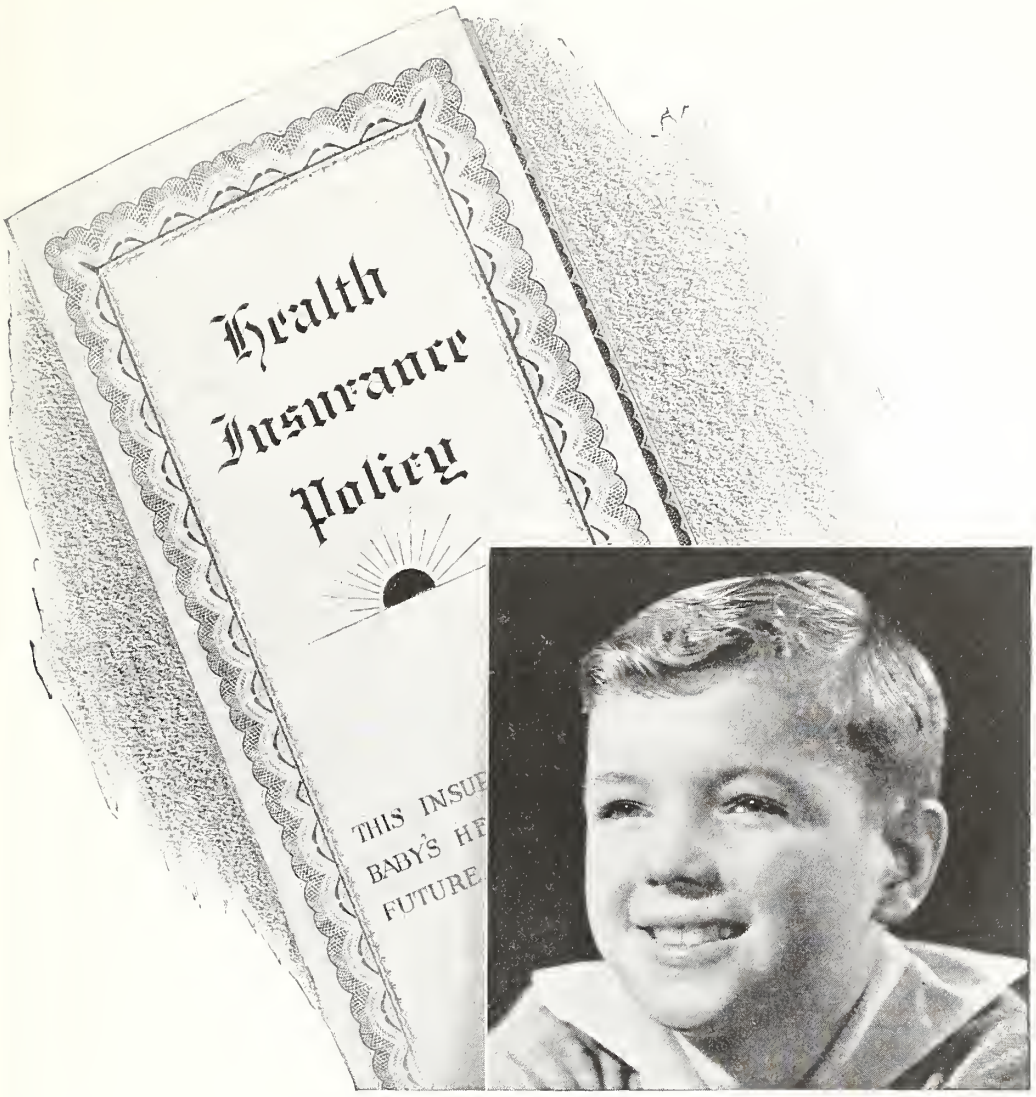
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society gained by the exclusion of the physician's testimony is less apparent than the benefit derived by excluding the testimony of the lawyer.

The common law recognized no doctor-patient privilege. Myers v. State, 192 Ind., 492, 137 N. E., 547, 24 A. L. R., 1196 (1922); People v. Austin, 199 N. Y., 446, 93 N. E., 57 (1910). In the absence of statute there is no such privilege today. Louisville & N. R. Co. v. Crocketti, Admx., 232 Ky., 726, 24 S. W. (2nd), 580 (1930); Remington v. R. I. Co., 37 R. I., 393, 93 A., 33 (1915); Rex. v. Gibbons, 1 C. & P., 97, 171 Eng. Rep., 1117 (1923). This privilege is given by statute in Ohio today, as well as in a majority of other jurisdictions. 28 R. C. L., 532. Section 11494, Ohio General Code, provides:—"The following persons shall not testify in certain respects: * * * An attorney, concerning a communication made to him by his client in that relation, or his advice to his client; or a physician concerning a communication made to him by his patient in that relation, or his advice to his patient. But the attorney or the physician may testify by express consent of the client or patient; and if the client or patient voluntarily testifies, the attorney or physician may be compelled to testify on the same subject."

In the instant case the plaintiff testified voluntarily and declared that his health had been good previous to the accident in which the injuries were allegedly sustained. Did he by this testimony waive his privilege? The statute says that if the patient voluntarily testifies the doctor may be compelled to testify on the same subject. Is the subject the health of the plaintiff or is the communications between the doctor and patient?

In the two cases of King v. Barrett, 11 Ohio St., 261 (1860) and Spitzer v. Stillings, 109 Ohio St., 297, 142 N. E., 365 (1924) the court, dealing with the lawyer-client privilege under the statute in question held that voluntary general testimony by the client in the case was sufficient to constitute a waiver of the privilege. As a result the attorney was allowed to be examined touching such admissions as were pertinent to the issue. And this was held to be the result even though the client had made no reference to any communications that had passed between him and the lawyer.

The majority opinion in the principal case dismisses the mention of these two cases with the statement that they "are distinguishable from the case at bar." The only apparent distinction seems to be that they deal with the privilege of lawyer-client while the instant case involves the privilege of physician-patient. In view of the fact that the former privilege existed before the

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statute and because there is obviously more justification for it than for the latter, a distinction might be drawn construing the privilege of doctor-patient more narrowly. But surely there is no reason for construing it more broadly.

With the construction of the statutory lawyer-client privilege given in King v. Barrett, supra, before it in 1878, the Ohio General Assembly re-enacted the statute in substantially the same terms and at that time the physician-patient privilege was included. An often-quoted rule of statutory construction would favor the supposition that the Legislature meant to adopt this interpretation. 59 Corpus Juris, 1063; many cases support this view although only a few are here listed. Ledingham v. City of Blaine, 105 Wash., 253, 177 Pac., 783 (1919); Bell v. Bell, 287 Pa., 269, 135 Atl., 219 (1926); Peo. v. Twp. of Munising, 213 Mich., 629, 182 N. W., 118 (1921); Kendall v. Garneau, 55 Nebr., 403, 75 N. W., 852 (1898). Spitzer v. Stillings, (supra).

SHOULD BE SHIELD, NOT SWORD

The privilege when granted should be a shield and not a sword. A patient may not want his bodily condition known to the world. But here the plaintiff is willing to disclose it. He calls a doctor to testify concerning his injuries and that the injuries were caused by the accident. However, he objects to the defendant calling a doctor to show that plaintiff's physical condition previous to the accident was not good. It is indeed harsh to permit other people to show that his health was good and to allow the plaintiff to testify to such fact himself and then on the basis of the privilege to prevent the defendant from showing that it was not.

The conclusion is submitted that the statute was susceptible of two constructions. But arguments of precedent and policy both favored admissibility. King v. Barrett, supra, and Spitzer v. Stillings, supra, although dealing with the lawyer-client relationship, seemed to cover the same point and in both cases it was held that the privilege had been waived. On questions of policy the argument seems equally strong. The decision would seem to represent a step backward from Ohio's previous advanced position in regard to the construction of privileges.

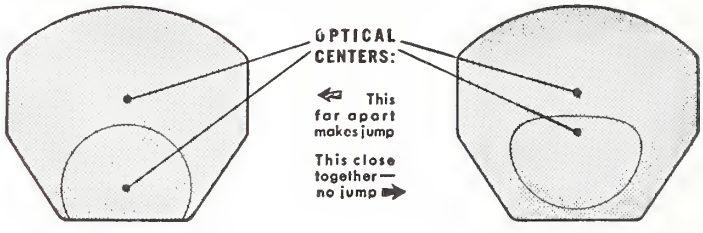
Dr. Robert C. Austin, Dayton, is the owner of Halley's Comet, a pacer with a mark of 2:05.

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Doctor, Here's Your Hat. By Joseph A. Jerger. *(Prentice Hall, New York,* $2.75), is repeating The Citadel because of ruthless efforts of its press agents. Just why fictional characters, if they happen to be physicians, should at once become realities, is beyond the reviewer. Such occupational bias is not displayed against other characters. The author is one of the best story tellers. I hope he is the exception to the rule and is as good a physician, but that really makes no difference either. Here we get one good story after another, and none of them have been spoiled by the doctor's telling them.

The Clinical Diagnosis of Swellings. By C. E. Corrigan, M.D. *Williams and Wilkins, Baltimore,* $4.00. This well-known Canadian surgeon and teacher has presented a practical method of studying and identifying the nature of swellings of every sort in the human body. Special emphasis has been placed upon a careful physical examination of each type, showing how they differ. There are 120 line drawings which really illustrate the author's point. Every physician will be repaid by the reading of it.

Safe and Healthy Living. *(Ginn and Company, Boston),* is a new series for the first eight grades offering a safety-education program within a comprehensive health course, all cleverly illustrated.

Book I—Spick and Span. ($0.64, by J. Mace Andress, Ph.D., editor of School and Health Department of *Hygeia,* and I. H. Goldberger, M.D., assistant director of Health Education in New York City Public Schools, and Marguerite P. Dolch) presents appealing stories emphasizing cleanliness and its importance to health and happiness. It treats of the care of person and clothes, good habits, proper foods, treatment of colds, care of the eyes, nose and ears.

Book II—The Health Parade. ($0.72, by the same authors), emphasizes the right habits of eating the right foods, wearing the right clothes, reading by the right light, getting the right exercise, and safely crossing the streets.

Book III—Growing Big and Strong. ($0.76, by the same authors), in entertaining stories, carries main topics of growth, food, digestion, the teeth, bones and muscles, posture, play and safety.

Book IV—Safety Every Day. ($0.76, by same authors and Elizabeth B. Jenkins), explains safety in all its aspects—play, eating, care of the body, and stimulants.

Book V—Doing Your Best for Health. ($0.80, by Andress and Goldberger and Grace T. Hallock), shows the pupil how he can capitalize his natural equipment to make everyday living more worth while.

Book VI—Building Good Health. ($0.84, same authors as Book V). Interesting accounts acquaint pupils with the outstanding events in medical progress. Its discussion covers growth, body food-needs, digestion, teeth, blood, bones and muscles, nervous system, shoes, disease, and safety.

Book VII—Helping the Body in Its Work. ($0.84, same authors), centers on anatomy and physiology, emphasizing personal hygiene.

Book VIII. The Health Home and Community. ($0.88, same authors). This final book looks at health and safety from the viewpoint of homemaking, citizenship and community health.

Allergic Diseases, Their Diagnosis and Treatment. By Ray M. Balyeat and Ralph Bowan. *(F. A. Davis Company, Philadelphia),* is the fifth edition of this interesting book. The earlier editions were intended primarily for the layman. This revision apparently emphasizes the interest of the medical man. The transition has not been made smoothly. As one who has insisted that his patients read one of the previous editions, your reviewer hopes that the authors will return to their original plan. The approach was psychologically sound for the patient.

Infections of the Hand. By Allen B. Kanavel, M.D. *(Lea and Febiger, Philadelphia,* $6.00). Seventh edition, is a revision of a book that is already a classic. With the death of the author just as the manuscript was finished, the edition

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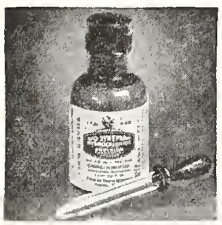
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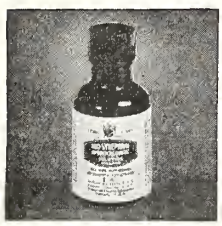


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will stand as a monument to Allen B. Kanavel and is a necessary part of the equipment of every traumatic surgeon.

Marriage. Instructions for the Married and Those Who Contemplate Marriage. By Bishop Van Streng, translated by Rev. C. P. Bruehl. *(Benziger Brothers, New York,* $1.50), bears the Nihil Obstat of the censor Librorium and therefore is well adapted to promote high ideals and a noble conception of the marriage relationships. It is done with frankness tempered by great delicacy.

A Scrapbook of Dental Informalities. By Herbert Ely Williams, D.O.S. Published privately, is entertaining text on bread and butter dentistry and professional philosophy.

Scientific Hypnotism. By Ralph B. Winn, department of psychology, College of New York *(Christopher Publishing House, Boston,* $1.75), supports the thesis that hypnotic phenomena are as natural as those of physics or biology. Hence the proper attitude is to seek the explanation and control of hypnosis which the author does in this little volume. It helps to understand not only the bodily mechanism underlying the diseases of hysteria but some of the successful practices of faith-healers as well.

The Chemistry of Natural Immunity. By William F. Koch. *(Christopher Publishing Company, Boston,* $2.00), is nicely printed, of the theories, and claims of the authors as to allergy, psoraisis, and infection. This concept of the role of deficient oxidation catalysis is familiar to most readers of *The Journal* who were for years on the author's mailing list.

Doctors, Nurses and Dickens. By Robert D. Neeley, of the Omaha Bar *(Christopher Publishing Company, Boston,* $1.50) is a very interesting presentation of the medical profession and its allies as seen through the eyes of Dickens by this confirmed Dickensian who has already a successful similar talk for the legal profession. In these days of hurrying, every physician should take time out to read this little volume and if he does, let him beware; he may become an educated man through reading Dickens.

The New International Clinics. Volume I, No. 2. March, 1939. Editor, G. M. Piersol. *(J. B. Lippincott Co.)* The artitcle on the Diagnosis, Symptomatology, and Treatment of Chronic Brucellosis calls attention to a disease which probably should be more frequently considered in fevers of unknown origin.

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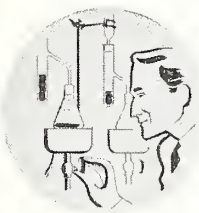
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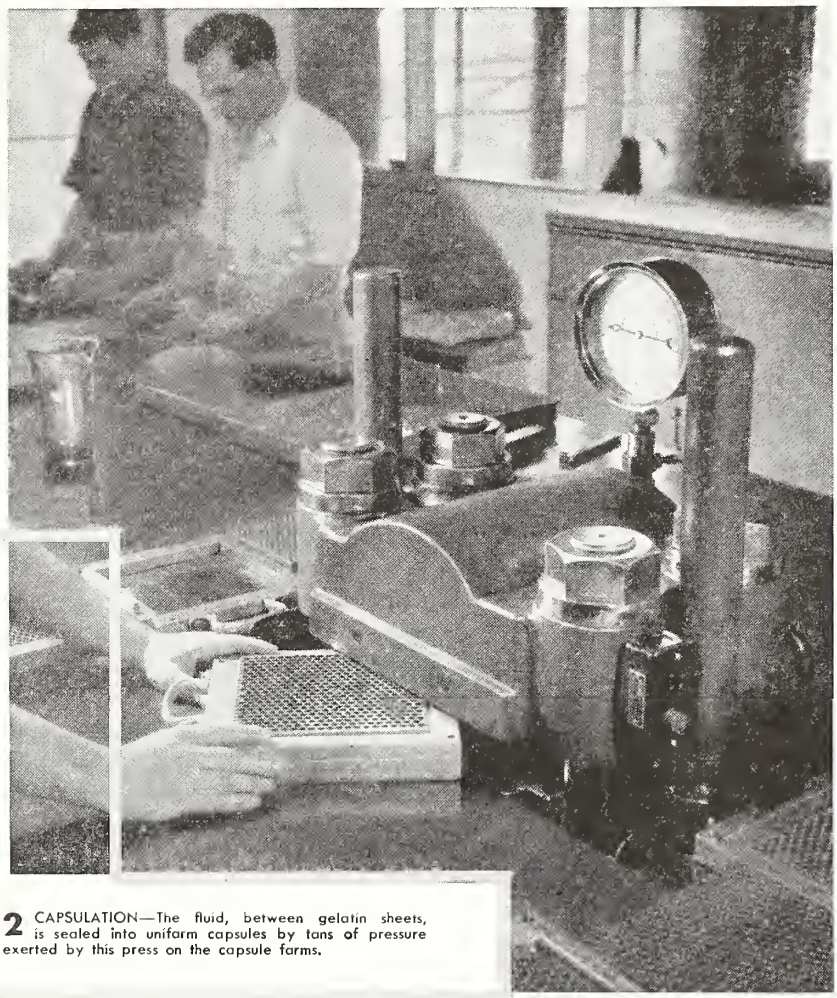
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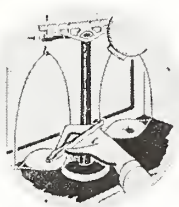
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Thoracic Esophagus by Dr. Garlock includes six cases. However, only three were successfully removed, one dying in 10 weeks, one in 22 months and one apparently doing well after 21 months. There was one surgical death in this series. The Management of a Patient suffering from Duodenal Ulcer gives many important diagnostic and surgical points by one of Canada's outstanding clinicians, Roscoe R. Graham. The article seems to the reviewer to be much sounder than the succeeding one on gastro-intestinal hemorrhage. Mixed Vaccinations by G. Ramon of the Pasteur Institute emphasizes the lag in this country of 10 years in the acceptance of vaccinating children against diphtheria, typhoid and tetanus at the same injection. An arresting study by Grabfield on the relation of gout to kidney innervation signals the possible nervous control of this disease. An excellent discussion of diabetic treatment follows, as well as an outline of electrocardiography and several clinical articles. A review of Water Balance by Cantarow completes this exceptionally well-edited issue.—R. C. KIRK, M.D.

Social Security in the United States. An Analysis and Appraisal of the Federal Social Security Act, by Paul H. Douglass, professor of economics in the University of Chicago *(Whittlesley House, New York,* $3.50), is the second edition of a scholarly and thorough treatment of the subject by one of its pioneer and chief proponents. This is not your view or mine, but that is all the more reason why we must read it.

Harmony in Marriage. By Leland Foster Wood. *(Round Table Press, New York,* $1.00), is the work of the secretary of the committee on marriage and the home of the Federal Council of Churches of Christ in America. It represents a sane viewpoint free of sophistication but modern nevertheless. Emphasizing the deeper meaning of marriage, the author points this surer way to happiness without in any way neglecting the physical.

The Fundamentals of Internal Medicine. By Wallace Mason Yater, M.D. *(D. Appleton-Century Company, New York,* $9.00), is an introductory text for medical students written largely by the editor and his associates at Mayo Clinic and at Georgetown University. The book represents a successful attempt to give the student the ground work upon which he will spend the rest of his life building his knowledge of medicine.

Personal and Community Health. By C. E. Turner, professor of Biology and Public Health at Massachusetts Institute of Technology. Fifth edition. *(C. V. Mosby Company, St. Louis,* $3.00), maintains its previous high standards as a university student's text.

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"WHAT'S COME OVER SALLY?"

LIFE IN THE McCormick household has suddenly become full of unpleasant surprises.

Sally, the merry little girl with "such a sunny disposition," is now a creature of unpredictable moods. She is given to easy tears and sudden fits of temper—quick to take offense at some chance remark. It's obvious she's not herself.

What should Sally's parents do about it? Pronounce her behavior inexcusable and devise a punishment to fit the crime? Or suffer the outbursts in silence?

No, because they are sensible people, Sally's parents will do neither of these things. They will look upon her emotional upsets chiefly as evidence that something is *physically* wrong—that bodily readjustments are sending up danger signals that should be heeded promptly. And realizing this, they will take her to the family doctor.

There is every reason why a girl entering her teens should be given regular check ups by a physician. Important changes are taking place which frequently throw the body's delicately-adjusted glandular system out of balance.

This is often a cause of headaches, weight disturbances, and emotional outbursts. During adolescence, heart and lungs need watching. At this time, tuberculosis, anemia, and appendicitis become greater hazards.

The doctor can not only help remedy "the troubles of the teens," but if the child is brought to him early, he can often forestall them. He can correct any organic weakness.

Under the physician's sympathetic direction, adolescence is usually a happier prelude to healthy, happy womanhood.

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News Notes

Andover—Local citizens recently held a celebration in honor of Dr. Lowry M. Guilinger, owner of Pete Astra, which won the Hambletonian, richest and most famous of trotting horse stakes, at Goshen, N. Y., August 9.

Ashland—Dr. O. J. Powell has announced his retirement after 41 years in the practice of medicine.

Cardington—Dr. Florence Smith-Goodhue, Sanibel Island, Florida, who retired four years ago after a half-century of practice here, is visiting in Ohio this summer.

Cincinnati—The Cincinnati Co-Operative Club, has elected Dr. C. A. Hofling, Jr., president.

Columbus—Dr. George T. Harding spoke on "Religion and Mental Health" at a recent meeting in the Seventh Day Adventist Church in Marion.

Dayton—The new $345,000 D. W. Iddings hospital building of the Stillwater Sanatorium was dedicated July 19.

Delaware—Dr. Bruce B. Barber, health commissioner of Delaware County for 12 years, has resigned. Plans are under way for a consolidation of the county and city health departments.

East Liverpool—Treatment of syphilis was cited as America's foremost health problem at a recent meeting of the Rotary Club addressed by Dr. A. L. Watkins, city health commissioner.

Jackson—Dr. W. R. Riddell won the Eighth District American Legion Golf Tournament played at the Jackson County Country Club recently.

Leipsic—Dr. W. S. Yeager has retired from active practice.

Lima—Dr. Edward W. Laboe has been named superintendent of Lima District Tuberculosis Hospital, succeeding Dr. O. E. Harvey, who resigned August 1.

Mt. Vernon—Dr. John L. Baube is the new college physician at Kenyon College, Gambier.

Toledo—Dr. John T. Murphy was one of the guest speakers at a meeting of the Upper Peninsula Medical Society, Escanaba, Mich., August 23-24. He discussed "The X-Ray Treatment of Advanced Superficial Malignancy".

Springfield—Dr. S. C. Yinger, formerly of Sidney, has become associated with Dr. Carl H. Reuter, specializing in diseases of the eye, ear, nose and throat and broncho-esophagology. Dr. Yinger recently completed a year's study in the department of otolaryngology of the Graduate School of Medicine of the University of Pennsylvania, and previously spent a year in Philadelphia with Dr. Chevalier Jackson and Dr. Louis H. Clerf in bronchoscopy and esophagoscopy.

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Vol. 35 October, 1939 No. 9

JONATHAN FORMAN, M.D., *Editor*

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Treatment of Nephritis

HERMAN O. MOSENTHAL, M.D.

THE ideal objective in the treatment of nephritis now, as it always has been, is the prevention and cure of the inflammatory and degenerative processes in the kidney. Because of our deficient understanding of Bright's disease, it has come to be appreciated that, although the renal changes may be of primary importance they elude control, that for the comfort of the patient, symptomatic treatment has to be resorted to, and that for the prevention of a fatal outcome, the management of cardiac dilatation and failure in acute nephritis, and the control of hypertension in chronic nephritis are by far the most significant.

The Author

● Dr. Mosenthal, New York City, is a graduate of Columbia University College of Physicians and Surgeons, 1903; member Association of American Physicians; American Society for the Advancement of Clinical Investigation, American College of Physicians; attending physician, New York Post-Graduate Hospital; visiting physician, Sea View Hospital; clinical professor of medicine, New York Post-Graduate Medical School of Columbia University.

ACUTE NEPHRITIS

It is now believed, as it has been for a number of years, that acute diffuse glomerular nephritis results from invasions of the body by the hemolytic streptococcus. The bacteria themselves do not reach the kidney to cause the acute nephritis, but in some way the toxins of these bacteria bring about the inflammatory lesion. It remains to be seen whether the use of sulfanilamide and its allied compounds, through their control of streptococcal infections will prevent the occurrence of acute nephritis; it is probable that this can be accomplished and it makes it doubly important for the practitioner to use sulfanilamide early in these infections. The actual treatment of acute nephritis consists of bed rest for three weeks after the albumin has disappeared from the urine, or if the albumin persists, for a period of three months in order to give the kidney as much chance as possible to heal. During the early acute stage, for two to four weeks, an absolutely bland diet of fruit juices, starches, vegetable proteins and milk, is indicated. Subsequently, a regular diet may be gradually resumed and modifications made in it according to the symptoms which present themselves. These will be taken up under the heading of chronic nephritis.

The original infection must be treated intensively though, as a rule, the acute nephritis develops about 10 days after the onset of the causal disease and the antecedent infection has usually subsided by the time hematuria, albuminuria and edema make their appearance.

In most instances the above measures suffice to control the acute nephritis and it is on account of the self-limiting attributes of this disease that nearly every form of treatment that has been advocated has met with success.

The main threats to life in acute nephritis are

Read before the First General Session, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

the preceding, etiological disease and cardiac dilatation and failure. The latter deserves special stress because only in recent years has this been recognized. The dilatation of the heart is due, in large part, to the rapid development of hypertension which comes so suddenly that it does not give the heart muscle time to hypertrophy and cope with the increased burden that is thrust upon it. In addition there is some myocardial degeneration as shown by electrocardiographic studies, but apparently this would seem to play a minor role. The cardiac impairment is managed most advantageously by lowering the blood pressure. Fortunately the hypertension is usually transient—a matter of a few hours or a few days—and it can frequently be controlled by the administration of magnesium sulphate, which may be given by mouth, by rectum, intravenously and intramuscularly. The dose by mouth and rectum is about one ounce; 25 cc. of a 10 per cent solution may be used intravenously; a 50 per cent solution (0.2 cc. per kilo, roughly 0.1 cc. per pound) has been advocated for intramuscular injection. All these doses may be repeated at intervals though careful watch must be kept of the course of the blood pressure and when it once begins to drop, the magnesium sulphate should be discontinued since it may bring about an over-effect and cause vasomotor collapse. The magnesium sulphate therapy frequently controls convulsive seizures, when they are present, inasmuch as these are usually due to increased intracranial pressure and edema of the brain.

CHRONIC NEPHRITIS

Two diseases are usually included under this heading: one, lipoid nephritis, characterized by degenerative lesions in the renal tubules and in other organs of the body, such as the liver and the thyroid; the other, chronic diffuse glomerular nephritis which may be of an inflammatory nature to begin with, leading to a secondary contracted kidney, or to a diffuse glomerular involvement due to arteriosclerosis, or nephrosclerosis, terminating in a primary contracted kidney. In their early stages these conditions exist in pure form and can be differentiated from one another but in the long run they tend to merge so that final distinctions, in many instances, cannot be made between them. This has led to the coining of such terms as chronic diffuse glomerular nephritis with a nephrotic component. From the therapeutic point of view, chronic diffuse glomerular nephritis should be managed according to the symptoms and signs which present themselves and not in a definite set routine sequence.

TREATMENT OF THE CAUSE

The cause of some forms of nephritis, such as mercury poisoning, is definitely known but the etiology of that type of nephrosis, the so-called lipoid nephrosis, that is considered as a chronic nephritis, has not been established. An infection of some sort may be responsible for nephrosis but this has not been proved. Chronic diffuse glomerular nephritis may follow on an acute nephritis. However, the forms of chronic diffuse glomerular nephritis that begin insidiously may or may not be preceded by an acute nephritis. The exact reason for the onset of chronic nephritis in those cases that begin in latent fashion, has not been finally determined. The recent studies of Loeb, Lyttle, Seegal and Jost indicate that recurring hemolytic streptococcus infections will not cause acute exacerbations of a chronic nephritis.

Nevertheless, it has been customary and desirable, from many points of view, to eradicate foci of infection, especially about the nasopharynx, in those persons who have had an attack of nephritis or who exhibit a persistent albuminuria. In these cases, tonsillectomies or other operative procedures may be carried out without damage to the kidneys; there may be an exacerbation of the albuminuria and edema for a few days but this promptly disappears and the patient returns to the same condition he was in before the operation was performed.

In recent years, it has been pointed out that pyelitis is frequently followed by nephritis—so-called pyelonephritis. According to some authorities this is the most frequent form of chronic nephritis, and other authors believe that one-third of the cases of nephritis originate in this fashion. The importance of diagnosing and treating pyelitis in its incipiency becomes obvious.

ALBUMINURIA

Albuminuria, like hematuria and persistent hypertension, merits a thorough examination to determine from which part of the urinary tract it originates and what causes it. Unfortunately, no method exists for abolishing the albuminuria of nephritis and the best mode of treating this condition is to take prophylactic steps to prevent the complications which the loss of albumin may entail. A marked and constant albuminuria gradually brings about a lowering of the blood proteins and produces degenerative changes in the cellular tissues, including the kidney, and causes changes in the osmotic pressure of the blood, resulting in edema; anemia is one of the late effects of a continued albuminuria. The generally accepted method of forestalling the consequences of albuminuria is the feeding of an adequate amount of protein food which will compensate for the wastage of albumin in the urine. There are a great many arguments against the idea of keeping patients with albuminuria active and placing them upon a high protein diet. It is true that albuminuria is diminished in the prone posi-

tion, that exercise and activity will increase it, and that a high protein diet will do the same. It must be recognized that the same factors may cause the appearance of albumin in normal persons, that such albuminuria is not harmful and that it is not worth partially suppressing the albumin in the urine by making undue sacrifices that will impair the general health and activities of the patient.

HEMATURIA

Hematuria has often been regarded as a very definite sign of acute nephritis or an acute exacerbation of a chronic nephritis. This is true as far as it goes, but a great many mistakes in the way of treatment have been made because of the presence of hematuria. When hematuria is found, whether it is slight or marked, it must be determined whether this is due to an acute nephritis, to a chronic nephritis, to tuberculosis, to stone formation in the urinary tract, to infection of the urinary tract, to passive congestion, or to malignancy. In some instances when all of these have been excluded, it must be admitted that the cause for the hematuria frequently cannot be found. In some cases the hematuria indicates a malignant nephrosclerosis and death within a period of three months from renal insufficiency.

In other patients the hematuria may persist indefinitely without causing apparent harm. There is one young man under my care, who came because of the finding of a trace of albumin in his urine on life insurance examination seven years ago, and who for the last five years has had a very persistent and distinct, though moderate, hematuria without suffering in any way. He has no edema, the renal function is normal, there is no elevation of blood pressure, and anemia and loss of blood albumin are prevented by increasing the proteins in the diet a little. The extreme opposite was the case of a child who passed some bloody urine and subsequently became anuric, and was diagnosed as acute nephritis. In this patient, catheterization of the ureters dislodged "sand" which was blocking the ureters on both sides, relieved the anuria and saved her life.

Hematuria may be the sign of an acute nephritis and when it disappears, it may signify either that the process is healing or that it is progressing. When the glomeruli become hyalinized and sclerosed the red cells disappear from the urine and the significance of this process can only be appreciated by observing the specific gravity of the urine, which becomes lower, and the blood urea nitrogen which increases—so that not only the appearance, but also the disappearance of blood in the urine has various interpretations. It is obvious that the diagnosis of the cause for the hematuria is essential for effective treatment.

Edema, as it occurs in nephritis, may have a multiple etiology. Albuminuria, depression of the blood albumin, the retention of sodium chloride, cardiac insufficiency, and anemia, may all have a bearing on the accumulation of fluid within the body in nephrotic conditions. When marked edema occurs, the outstanding factor is usually the lowering of the blood albumin, though the other causes must not be overlooked. A high protein diet should be insisted on in these cases. In most patients, especially when the accompanying blood pressure is high, the possibility of cardiac insufficiency should be kept in mind. Digitalis is the best remedy for this condition. In some cases small doses of digitalis are of help even though the failure of the right ventricle is not clinically evident. It becomes a question of trial and error to determine whether digitalis is or is not advisable. In addition to its effect on the heart there is always the possibility that digitalis may act as a diuretic. The prolonged use of small or moderate doses of digitalis does these patients no harm and if it aids the elimination of fluid, should be continued. If the edema is at all burdensome, diuretics should be resorted to. The high protein diet furnishes large amounts of urea which, in itself, is a good diuretic. Urea given in solution is preferred as a diuretic in many clinics. If the blood urea nitrogen is in the neighborhood of 60 mg. per 100 cc. of blood, further administration of urea is useless and contraindicated. The urea may be given in 10 gram doses, three times a day. It is readily soluble in water and may be taken before or after meals.

Restriction of salt is an old remedy but nevertheless exceedingly important. It is the sodium in the sodium chloride that is responsible for the retention of water, whereas the chloride is a distinct diuretic. On this account most of the salt substitutes which are sodium salts of various acids are of no value. The use of potassium chloride instead of salt, often results in an increased production of urine. Potassium chloride may be powdered and used on the food instead of salt but it usually is not palatable because of its exceedingly bitter taste. This may be circumvented by putting the potassium chloride in capsules up to 10 grains each, which are given three or four times a day. It is well tolerated by most patients when administered in this fashion. The former dread of potassium poisoning seems to have been, to a great extent, unfounded and there need be no apprehension in giving such doses.

Thyroid has been advocated as an exceedingly good diuretic in cases of marked edema, largely because the basal metabolism is prone to be low. In some instances it may be given in very large amounts. The thyroid medication should be begun

slowly and gradually increased to determine how large a dose the patient can take. The best guide is the level of the blood cholesterol. This drops to about 150 to 180 mg. per 100 cc. of plasma when the limit of thyroid dosage is reached. Under the usual conditions of the practice of medicine, when such laboratory determinations are not available, one must be guided by the pulse rate, the nervousness and so forth, which the thyroid elicits. Patients under thyroid treatment should be closely watched so that overdosage does not occur. When these methods yield no results, mercurial diuretics may be resorted to.

The newer mercurials are the most effective diuretics available. They cause no exacerbation of nephrosis and, in my experience, can be used in nephritis as well, without harming the kidney. They are more effective when given with theophyllin, in which combination these drugs are now on the market. The theophyllin, like digitalis, presumably causes an increased glomerular filtration, while the mercurials act by diminishing the amount of fluid and salt that is re-absorbed in the passage of the urine through the tubules. In this way, both glomerular and tubular diuresis are brought about. These drugs may be used intravenously, usually in 2 cc. doses, and should be given no more frequently than at five day intervals. There is great danger of local necrosis if some of the fluid escapes subcutaneously. Consequently, great care must be taken with the intravenous injections. For those patients in whom the veins are not readily available, the injections may be made deep intramuscularly. The diuretic action under these circumstances is not quite so good, but still it is appreciable. The suppositories may be used at similar intervals and have the advantage that the patient can resort to them at home without expert medical aid. The suppositories are sometimes irritating and their use should be preceded by the application of some bland ointment.

In many patients the mercurials will act effectively by themselves; in others, when the response is comparatively slight, one of the acid-producing salts should be used in conjunction with the mercurials. Ammonium chloride is the salt that is most readily available. It comes in 7½ gr. enteric coated, or, preferably "enteric sealed" tablets, about 12 to 15 of which are given the day before and the day of administration of the mercurial. Rest in bed promotes diuresis considerably. It also diminishes the albuminuria. Consequently, in extreme cases, rest in bed and a period of hospitalization often aids the removal of edematous accumulations. However, when edema is a chronic affliction, as it so often is, our aim should be to remedy this condition while the patient is up and about and maintained at his or her usual activities. This can be achieved in most cases.

IMPAIRMENT OF RENAL FUNCTION

Prior to 25 years ago, when the means for estimating renal function, notably the dye test and blood chemistry, became available, impairment of renal function was considered the principal eventuality to be avoided in the treatment of Bright's disease. It is now recognized that nephritis and nephrosis usually exist for indefinite periods without diminution of kidney activity, and the edema, hypertension and anemia are more pressing, immediate problems for treatment than the accumulation of renal excretory products within the body. As the kidney becomes affected in chronic nephritis there is a definite sequence of events. It is now known that about 50 per cent of the kidney tissues may be destroyed and yet, kidney function may be normal, from the clinical point of view, as measured by dilution and concentration or the blood chemistry. When the condition progresses further and more than half of the glomeruli are no longer active, then an increased amount of urine of diminished concentration is produced, the compensatory polyuria. This urine, large in quantity and with a low fixed specific gravity, serves to eliminate the full amount of substances ordinarily excreted by the kidney so that the blood chemistry remains normal.

Subsequently, the compensatory polyuria fails, the blood urea nitrogen and the allied substances increase in the circulation and serve to act as a diuretic stimulus which maintains them at a given level. When the blood urea nitrogen reaches a level of about 60 to 70 mg. per 100 cc., then maximal impairment of renal function may be said to exist and only about 10 per cent of the normal amount of kidney tissue remains active. It is clear at this point that a very slight further impairment of renal function will bring about so extensive an accumulation of the renal excretory products within the body that a fatal uremia is inevitable. It has been found that the early stages of renal insufficiency can be compensated for by forcing fluids. When the blood urea rises it becomes an intricate problem to decide the amount of protein food which shall be advised. From clinical experience it is now believed that a moderate elevation of the blood urea does no particular harm but that a low protein diet will result in malnutrition, which is more detrimental than a high blood chemistry. These problems will be taken up in greater detail under the headings of fluid and protein intake.

BLOOD PRESSURE

Hypertension, in chronic affections of the kidney, is the most dreaded of all complications. It is more frequently the cause of death in persons

after middle age, in both nephritics and non-nephritics, than any other disease. From Goldblatt's researches we now know that relief of unilateral conditions of the kidney by surgery will frequently relieve hypertension. Also the remedying of obstructive lesions in the urinary tract will accomplish the same. It is still an open question whether hypertension may be a primary affection or whether it is invariably preceded by lesions in the kidney. In any event, every case of albuminuria or permanent elevation of blood pressure deserves a urological examination to determine whether any condition exists that may be corrected by surgical or medical means, and thus prevent the development of an excessive rise in the arterial pressure.

When hypertension has become manifest, treatment by medical and hygenic means should be persistently and conscientiously followed out. Whether the present surgical measures for the treatment of hypertension will prove more successful has not been fully determined. In any event it is clear that hypertension is the greatest threat to life in the nephritic and that a persevering adjustment of the patient's activities within his capacity to carry on, will result in the most favorable prolongation of his existence.

ANEMIA

Diminution in the hemoglobin and red cell count may come about in the nephritic patient because of the antecedent infection, because of loss of blood and albumin in the urine, and because of the influence of impaired renal function. The first two of these, as a rule, can be controlled by the elimination of infection or infectious foci and by a sufficiently high protein diet and the usual hematinics. The third, that is the effect of diminished kidney activity, can not be overcome completely. Increasing severity in the anemia is directly proportional to the grade of diminution of kidney function. This is true not only of Bright's disease but all other conditions, such as polycystic degeneration of the kidneys. Exactly how this toxic effect is brought about is unknown, but empirically its existence is recognized.

In those patients who are treated with the lacto-vegetarian diet of 25 years ago, the anemia develops much earlier than it does in the cases that receive an adequate protein quota. In other words, a high protein diet will serve to ward off an anemia. When it does occur, iron, liver extract and the other usual remedies that are effective in anemia due to other causes, will fail to produce results. The only known method of treatment to elevate the blood count, is transfusion. If transfusions are resorted to before the anemia has progressed very far, small amounts of blood are usually effective. When the anemia is marked, the first one or two transfusions, even of 1000 cc. each, may evoke very little response but the third and fourth transfusions, all of them given in fairly rapid succession, will usually serve to return the blood to an approximately normal level.

In cases with only moderate impairment of renal function the anemia may be remedied for an indefinite period, while in the more advanced cases the hemoglobin and red blood cells are prone to diminish fairly rapidly. Reactions from transfusions are not more frequent in cases of Bright's disease than they are in other patients. Transfusions relieve the anemia but will accomplish nothing further than that. They do not raise the blood pressure, in most instances they do not relieve edema, and they will not improve kidney function. However, the general condition is bettered to a remarkable degree and the sense of well being which the patients attain and their ability to carry on, even if only for a comparatively brief time, make the procedure eminently worth while.

MANAGEMENT OF THE FLUID INTAKE

When edema exists it is customary to restrict the fluid intake. As a matter of fact it is not the fluids that bring about a retention of water but the salt, and when salt-free fluid is given the patient, it is usually eliminated without difficulty and, as a rule, does not increase the edema.

In the presence of cardiac insufficiency the fluid should be limited as then there is an actual inability on the part of the kidneys to eliminate water and an increased volume of fluid within the body embarrasses the circulation to a considerable degree.

There is a general impression that a large fluid intake is contraindicated in hypertension because it raises the blood pressure. This is not true as shown by many observations, and fluid may be allowed in hypertensive states, provided there is no cardiac insufficiency.

In the early stages of renal insufficiency, that is when the solids are eliminated by compensatory polyuria, fluids should not be withheld but the patient should be allowed to take them in as large amounts as his craving calls for.

Water is the blandest of diuretics and in cases of renal insufficiency it is the one diuretic whose use is permissible. Care must be taken that the fluids are not forced beyond the capacity of the kidney. When the fluids are forced in persons with threatened uremia the water intake should be curtailed when edema develops. The edema, in itself, does no harm and possibly even serves to dilute the toxic materials in the blood and diminish the uremic symptoms. The converse, that uremic symptoms increase through concentration of the blood when diuresis occurs in edematous patients, is a matter of common experience. The urinary output should be watched

from day to day and when it diminishes while the fluids are being taken in large amounts it may be that kidney fatigue makes itself manifest and that the paradoxical result may be produced, namely, that the kidney activity may be increased by a diminution in the fluid intake. This is probably the result of "fatigue" of the kidney that comes about through over-stimulation. All these facts make it apparent that the fluid intake is of extreme importance and that definite results can be obtained by its proper regulation. It becomes evident that dilution and concentration tests so commonly employed at present are fraught with possible danger to the patient with cardiac insufficiency, as well as those with diminution of renal function. The recording of specific gravities in routine specimens or the two-hour test while the patients are on their usual diet, will serve the purpose just as well without subjecting them to the hazards of fluid overloading or deprivation.

PROTEIN INTAKE

Up to 25 years ago the routine treatment of Bright's disease called for curtailment of protein intake with the idea that the kidneys were spared when those foods were withheld whose end products of digestion were eliminated through the urinary tract. This method of treatment, it has come to be realized, has a double disadvantage. In the first place it induces malnutrition, anemia, invalidism and increased susceptibility to infections, especially tuberculosis. In the second place, it is now appreciated that a diet poor in proteins causes degeneration of tissues throughout the body, including the kidneys. Because of the appreciation of these facts, diets with a higher protein content are usually ordered.

The habitual diet of the average individual engaged in a sedentary occupation has been found to be between 40 and 50 grams of protein, which is not entirely adequate and has a tendency to be accompanied by a considerable degree of anemia and lethargy. It is now generally believed that a protein intake of 60 to 70 grams of protein a day is what is required for ideal nutrition. Consequently, the usual formula for maintenance in Bright's disease is that about 70 to 80 grams of protein, plus the amount represented by the loss of albumin in the urine, should be the daily ration. Roughly speaking, a diet containing one egg and two moderate helpings of meat or fish a day, plus the usual amount of bread, vegetables and so forth, represents an intake of about 70 grams of protein. When two eggs a day, and two rather liberal helpings of meat or fish are taken, then the protein intake amounts to about 90 grams a day.

Greater amounts of protein than these are frequently advocated and it is considered that the ideal protein intake to make good the deficiency in proteins should be between 120 and 200 grams a day. From practical experience it might be said that this would be the ideal state of affairs but that it is exceedingly difficult to have patients consume this quantity of protein food.

The problem arises as to how much of this protein food that is offered to patients with Bright's disease, even if it could be consumed, can be assimilated. In children with nephrosis Farr has shown that the limit of assimilation consists of about 3 grams per kilo per patient. Thus for adults, it would mean a protein intake of about 200 grams, a quantity which is never exceeded in practice. It is well known that a high protein, high caloric diet can be assimilated very effectively in cases of nephritis and anemia, whether of the primary or the secondary type. In persons not afflicted with kidney disease, such diets are exceedingly successful in accomplishing a return of the blood count to a normal level. In nephritis when renal function is not impaired, or there is only slight impairment, a high protein intake will restore the hemoglobin and red cells to normal, but when renal insufficiency is marked it will only show the downward progress.

One of the main objects of a high protein diet in the treatment of Bright's disease is to elevate the lowered blood albumin which occurs in nephrosis. Theoretically, this would appear to be the ideal mode of procedure. In practice, however, such results are not obtained in many instances although a high protein diet in cases of nephrosis complicated by edema, is always worth persisting in with the hope that the blood proteins will regenerate and that the urea produced from the digested proteins will have a diuretic effect.

There are certain possible disadvantages of high protein diets. It has been amply proved that in normal persons and in cases of Bright's disease over a period of a few years proteins will not elevate the blood pressure. When the diets are continued for a longer period of time in nephritis, it may be that the progression of the nephritis may be accelerated and because of this the blood pressure elevated.

In animals with nephrotoxic nephritis, which at least resembles human nephritis, it was found by Farr and Smadel that a high protein diet prevented the recovery from such a nephritis, whereas animals on a low protein diet showed a diminution or complete disappearance of the nephritic symptoms. All these experiments were carried out on rats and the diets were much higher in protein than man, under any circumstances, would consume. Considering all the facts there is an evident contradiction; whereas on the one hand we have degenerative lesions produced in the kidney through deprivation of protein, on the other there is an aggravation of

nephritis by excessive protein food. Where the golden mean between these extremes lies, it is very difficult to say, but we should bear in mind that under-nutrition is induced by low protein diets and that this must be avoided at all hazards. When a patient is under-nourished, his vital activities are curtailed and he becomes an invalid. This is obviously undesirable. It is the impression of those physicians who have lived long enough to see patients treated with low protein diets and with the higher protein diets, that the latter result in a longer and more enjoyable life, with greater freedom from complications for the sufferer with Bright's disease, than was effected by the old-time lacto-vegetarian regime.

UREMIA

Uremia is not a single entity. There are three types of uremia that often co-exist. Since each one of them calls for a different treatment they should be properly differentiated one from another. The symptom-complexes which are usually included under the heading of uremia are:

1. Manifestations of central nervous system irritation associated with hypertensive encephalopathy, that is, increased intracranial pressure and cerebral arteriosclerosis.

2. The convulsive seizures occurring in acute nephritis which may be due either to the increased intracranial pressure or to the direct effect of the toxins in the hemolytic streptococcus upon the tissues of the central nervous system, or to both.

3. The symptoms accruing from the retention of urinary excretory products, usually designated as asthenic uremia or retention uremia.

It is only the last of these that will be briefly discussed here. The actual cause of the production of retention uremia is not fully known. It is appreciated that in all probability the accumulation of urea and most of the other electrolytes within the blood and the tissues has very little influence in producing the uremic state.

It is known that sodium chloride, calcium, and acid substances largely through the retention of phosphates, all play a part in the picture.

The general procedure in treating cases of retention uremia is to administer large amounts of fluid thereby promoting diuresis to as great an extent as possible. The diet should be bland, high in carbohydrates, low in protein and, as a rule, low in salt. If the patient is vomiting, glucose infusions should be resorted to. Fluids should be forced to the point of moderate edema. Diuretics should under no circumstances be employed. The water and glucose should be relied upon in this regard.

Muscular twitchings so marked that they may even become convulsions, are usually due, in retention uremia, to a calcium deficiency. Intravenous calcium should be employed. Ten or twenty per cent calcium gluconate ampoules may be given as often as three or four times a day. Theoretically, each injection would raise the blood calcium far beyond the normal blood calcium concentration, but in reality these intravenous injections given slowly are so diffusely distributed in the body, that it requires several days of treatment to bring the calcium from 5 mg. to 8 or 9 mg. per 100 cc. When the blood calcium determinations are not available the advisability of continuing calcium has to be judged according to the symptoms, that is, the control of convulsions and the disappearance of the muscular twitchings.

The acidosis is due in great part to the retention of phosphates and is readily controlled by one or two drams of bicarbonate of soda a day. Such control, of course, is only temporary, the acidosis returning because of the continued retention of phosphates and possibly other acid-producing materials.

The regulation of sodium chloride for the control of uremic symptoms is very difficult without blood chloride determinations because as far as the symptoms are concerned, the result of too low blood chlorides, or too high blood chlorides, is very much alike and cannot be differentiated; furthermore, the necessity for chloride administration or its withdrawal varies from day to day. When the blood chloride determinations are available it is a simple matter either to withhold or to administer chloride and remedy the situation, and when this is done frequently the lives of many patients can be prolonged a great deal. If such laboratory procedures are not available, a trial of 5 gms. of sodium chloride for a day or two, or withholding the salt, may serve as a guide to the proper therapy.

In the treatment of nephritis many points deserve the closest scrutiny and the methods of treatment will vary greatly in different patients, and in the same patient as the disease improves or progresses.

The main change that has come about as the years have passed by, is that the treatment of Bright's disease no longer has as its sole purpose the sparing of the kidney, but that the general condition of the patient and his extra-renal symptoms have become of paramount importance.

889 Lexington Ave.

A patient with symptoms, supposedly of appendicitis, upon being cystoscoped, revealed a date-sized stone protruding from the left—not the right—ureteral orifice. Stone removal cured the appendicitis.—Julius W. Kleinboehl, Milwaukee.

A traumatic urethrorectal fistula was discovered at cystoscopy. Treatment, expectant; result, cured.—A. G. Rytina, Baltimore.

Diagnosis of the Acute Surgical Abdomen in Children

A. W. CARLEY, M.D.

ACUTE appendicitis will always be the most frequent diagnosis we are called upon to make in the acute abdominal conditions. It is not the most easy. When one is more accustomed to the palpation of an adult abdomen, to feeling the muscle resistance and later the rigidity of a solid muscle mass, it is difficult to adjust himself to the findings in an infant who hasn't the same amount of muscle and who cries and protects his whole abdomen. An appreciation of this fact, a lighter touch, an infinite amount of patience and more observation is necessary in arriving at a diagnosis.

That the fate of a given case rests largely in the hands of the first medical man to see it, could never be more applicable than in this condition. It follows then that cooperation between family physician and pediatrician or surgeon is most desirable. Surgical judgement might affect the issue in slight degree in late cases but time is the big factor.

I am entirely in accord with the idea that an emergency operation on a toxic, dehydrated child with a late peritonitis is of little avail. It is sometimes difficult to resist the pleas of the family for action but the days of miracles seem to be past in so far as cures by immediate operation on this type of case is concerned.

Dr. Wangensteen and associates in a recent article[1] discuss the structure and function of the appendix as regards the genesis of acute inflammation. It is evidently a secretory organ and has much lymphoid tissue so that an obstructive origin is reasonable.

Nagoya observes a decline in the lymphoid tissue and a decrease in the glands with advancing years which bears out the age period in which appendicitis is most frequent.

There is speculation about the lymphoid tissue in the appendix being responsive to stimuli from infection of lymphoid tissue in the throat but advise caution in attributing localized right sided lower abdominal pain to this cause and advising against operation.

There is an acute general glandular involvement in the abdomen called by various names which increases our diagnostic discomfort. However, if an acute localized intra-abdominal condition exists in the appendiceal area, whether closely following a sore throat or not, it would be safest to diagnose an appendicitis.

The symptom complex handed down to us by Dr. Murphy is the sequence observed by a master in the classical case. Given in the order of occurrence they are (1) pain, (2) nausea and vomiting, (3) general abdominal sensitiveness most marked over appendiceal area, (4) fever.

One expects constipation but sometimes the patient has a diarrhea; one is suspicious of chills but sometimes they occur. Dr. Stuart Hawkes[2] believes the latter an indication of thrombosis of the vein supplying the organ and that the ileocecal vein should be ligated. Certainly it is an indication of serious involvement.

Frequently there are pus cells in the urine and I remember one four-year-old girl with clumps of pus, whom I visited three times in 20 hours, finally operated upon and found a gangrenous appendix overlying the ureter. One patient complained bitterly of penile pain on urination from a similarly located appendix.

One does not expect to encounter a g. c. pelvic peritonitis in a ten-year-old but it is possible as I have reason to know.

Occasionally a child appears in the hospital with a rigid abdomen which represents an oncoming coma. If it is a known diabetic, your problem is simplified. However an acute intra-abdominal condition may exist concomitantly so that after a few hours of active treatment with insulin a decision must still be made. No one would operate without urinalysis but one could imagine the situation if he should.

Confusion in cases of pneumonia in children with a right abdominal stiffening sometimes exists. The onset in both is acute with pneumonia having both higher temperature and blood counts in general. Careful auscultation or a properly interpreted skiagram help to solve this problem.

I remember a child with a considerable respiratory infection including acute bronchitis and symptoms which indicated an appendicitis. Because of the former, decision was made not to operate—the appendix abscessed, was drained

The Author

● **Dr. Carley, Dayton, Ohio, is a graduate of the University of Pennsylvania School of Medicine, 1912; fellow American College of Surgeons; member Founders Group, American Board of Surgery; senior surgeon, St. Elizabeth Hospital and visiting surgeon, Good Samaritan Hospital, Dayton, Ohio.**

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and the case fortunately recovered. I do not advocate this procedure—merely report it.

In childhood the progress of appendicitis to perforation is more rapid than in adults, which increases our responsibility. During the recent influenzal epidemic in Dayton, we saw an alarming proportion of cases in which perforation had occurred hours or days previous to admission.

Many influenzal patients have gastrointestinal symptoms but whoever coined the word "intestinal flu" has much to answer for. In speculating about the reason for so many cases with perforation, we can well imagine that rapidity of perforation and ensueing high temperatures were deceiving. No doubt economic condition was a factor, that is, lack of money and hope of subsidence by the family. The solution to the former would seem to be frequent examination with this possibility in mind. More information is necessary for the latter as to methods of securing hospitalization.

A most puzzling condition is the acute or long continued right sided abdominal pain in children of school age without any other noteworthy symptoms. The chief thing to be determined here is whether the pain is parietal from intercostal nerve involvement or is in fact intra-abdominal. Since the former is very frequent, the method of examination described by Dr. Carnett in 1926[3] and later by Dr. Bates and associates, has been a source of great satisfaction to me. Pinching of the skin may give one a lead. Briefly the most important portion of the examination is to determine whether the tenderness remains the same with a voluntary tensing of the abdominal muscles or mostly disappears. The abdomen may be made tense by a straining effort or raising the legs off the bed with the knees stiff. If the tenderness over the ileocecal area disappears when the abdomen is tense, one should be willing to make a diagnosis of appendicitis or some intra-abdominal condition with very little else in the way of symptoms. (Suggest you try this in a recent known case of peritonitis if you have not already done so. It must be before muscle involvement). The tenderness on original palpation must not have been caused by pressure on posterior wall at side of vertebrae.

If the tenderness remains the same, one should question such a diagnosis and investigate further. If he be especially skeptical, the twelfth dorsal and first lumbar nerves may be injected with novocain and then re-examine for tenderness.

Lastly, if he can not satisfy himself, no one could quarrel with treating a patient as having an appendicitis and operating.

This method of examination is of benefit chiefly in children of school age who are able to cooperate. This is a compensation because their athletic activities increase at this age and they do have back strain. Where the back strain is acute, one finds extreme tenderness anteriorly.

However, if he suspects a parietal involvement and turns the child over, he will often find the muscles of a segment of the back in acute spasm. Upon many occasions, I have seen cases of this type being considered for operation when the cause was a strenuous round of tennis, football, etc.

Some years ago, I believed myself able to detect some disturbance abdominally in any condition felt rectally. Have been cured long since so mention it as a reminder not to forget this additional avenue of investigation.

A Meckel's diverticulum or persistence of the omphalo-mesenteric duct may cause intestinal obstruction, may develop ulceration or may be causative in an intussusception. The site varies in location but in general is about two to three feet from the ileocecal juncture.

In 1937, I was called upon to operate a six-months-old child with an evident peritonitis and this history: A child apparently in perfect health, suddenly passed a considerable amount of blood on its diaper without pain. This occurred several times in the following three days at which time she suddenly developed a peritonitis. This syndrome of a well child passing pure blood without pain apparently points rather definitely to an ulceration in the ectopic gastric mucosa of a Meckel's diverticulum.

Schaetz found gastric mucosa in 16.6 per cent Meckel's diverticula[4]. Some men feel it is comparable to peptic ulcer of the stomach while Stulz and Woringer consider it to be like a jejunal ulcer following gastro-enterostomy because it occurs on the margin[5]. At any rate, this was such an ulcer with perforation. Stulz and Woringer collected fourteen cases—ten perforated and seven died as did this one. These cases all occurred after seven months of age.

The well child who has sudden severe pain in the abdomen, with recurring colic, symptoms of obstruction and who passes blood should have an intussusception. Of course blood may not appear in this condition. In neither case is there early fever. On the contrary, the temperature may be subnormal.

The child who has been sick for some time with intestinal disturbance and who passes blood admixed with stool and mucous probably has an ulceration of the bowel.

The history is most important because the objective findings may not be definite. In addition to the above symptoms of intussusception, the palpation of a sausage-like mass in the abdomen is most convincing. So is the presentation of the intussusceptum at the anus but these cannot always be felt. This is especially true in the presence of considerable distention.

Obstructive vomiting or peritonitis are obvious

signs of disaster but our efforts should be to precede these calamities.

It is of interest to know that 50 per cent of the cases of intussusception occur in the five to nine month group.

Last fall a girl of eight was admitted to St. Elizabeth Hospital at midnight with a diagnosis of peritonitis. The referring physician said that she had an attack of pain that morning at which time he felt a mass on the left side. This was massaged and the child given enemata after which it seemed to disappear.

Later in the day when he saw her, she had abdominal rigidity which he felt was evidence of peritonitis so he sent her to the hospital. The house physician realized the child was in a diabetic coma and instituted active treatment with insulin. I saw her the following morning at which time a mass was easily felt in the ileocecal area. If the doctor was right in his initial observation, the condition should have been an intussusception which it felt like and turned out to be. The condition did not permit of reduction and was gangrenous. The ileocecal juncture was resected and with the help of the pediatrician and diabetic consultant, the child made an uneventful recovery.

I was interested to compare this case which showed an early gangrenous process as have almost all of my cases of appendicitis in diabetics, with a recent case of intussusception which apparently occurred six days previous to operation and while irreducible, was not yet gangrenous. This latter was in a non-diabetic.

It has not been my privilege to see a case of perforated duodenal ulcer in the child. I have seen perforated ulcer of the colon. The symptoms are of course those of a general peritonitis.

One encounters an occasional case of intestinal atresia or stenosis in infants which are serious enough and require rather prompt attention but do not properly come within the scope of this discussion.

Rarely one finds a case of strangulated internal hernia. Here again the symptoms are those of obstruction, colic, vomiting and varying degrees of distention. A flat plate may be helpful. It is superfluous to mention that the external hernial orifices should be observed first in any apparent obstruction.

I am uncertain as to whether or not a case of regional ileitis came under my observation recently. The requisites for such a diagnosis as enunciated by its discoverer, Dr. Burrell B. Crohn of New York[6] are that there be a circumscribed involvement of a segment of bowel and no evidence of tuberculosis or neoplasm. The diagnosis would be most apt to be made by X-ray but one would hesitate to order a barium X-ray on an acute or subacute condition of the lower right abdomen.

This case was that of a colored boy of fourteen years, who had had a tubercular testicle removed, and had a chest condition previous to that. He had lower right abdominal pain, some fever and frequent stools. There was a mass palpable.

Upon opening the abdomen there appeared to be considerable thickening of the ileum for a distance of six inches and the appendix was enlarged with rigid walls. There had been no obstructive symptoms; there was local mesenteric involvement of the glands so that a resection did not seem feasible, particularly if it were tubercular. Records do not show short circuiting operations to be of much benefit. The condition was thought to be tubercular but pathological examination of the removed appendix did not bear this out. If it were a regional ileitis, it is the only one I ever saw in a child.

This discussion has given you nothing new but was intended rather to review some of the intra-abdominal conditions which confront us daily, with mention of a few conditions not so frequent that have come under our observation.

414 Harries Building.

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Rat-Bite Fever

Rat-bite fever (sodoku) is an infectious disease following the bite of a rat or an animal preying on rats, such as the weasel, ferret-cat, or dog. Laboratory infections have occurred and also infection of a previous wound. The disease may be caused by a mechanical transfer of infection by scratches or bites of animals not having the disease themselves. In one instance a case is reported of a secondary infection of a wound.

In 1933 Bloom summarized 67 cases in the United States, occurring in 23 states: New York, six; South Carolina, five; Louisiana, four; Georgia, three; Indiana, three; Nebraska, three; California, two; Connecticut, two; Illinois, two; Iowa, two; Massachusetts, two; Mississippi, two; Alabama, one; Kansas, one; Maryland, one; North Carolina, one; North Dakota, one; New Jersey, one; Ohio, one; Pennsylvania, one; Tennessee, one; West Virginia, one; unknown state, 18. Since then Walker reported two cases in Virginia and Garvin three more in Ohio. Garvin collected 19 additional cases between 1931 and 1936, reporting three from Ohio.—Henry G. Hadley, M.D., Washington, D. C.; Medical Record, Vol. 150, No. 5, Sept. 6, 1939.

Regional Ileitis

JOHN W. HOLLOWAY, M.D.

THERE has been rather widespread interest in chronic inflammatory diseases of the intestinal tract in recent years, but a survey of the literature suggests that to some extent it is an exacerbation of interest. In 1806 Combe and Saunders are said to have reported a case of "singular stricture and thickening of the ileum," and in 1828 John Abercrombie described a case involving the terminal ileum in which the gross description coincides with our present conception of regional ileitis. W. J. Mayo, in 1888, reported a series of chronic inflammatory lesions of the cecum which simulated malignant disease. Braun in 1909, Moschcowitz and Wilensky in 1923, and Mock in 1931 made further contributions which seemed to isolate the specific from the non-specific granulomatous lesions of the gastro-intestinal tract. However, it remained for Crohn and his associates in 1932 to report a series of chronic inflammatory lesions which, at least in their first series, consistently involved the terminal ileum, stopping abruptly at the ileocecal valve. This together with certain other characteristics made them feel that possibly they were dealing with a clinical entity. Since that time certain contrary-minded individuals have reported somewhat similar lesions at higher levels in the small intestines as well as occasional manifestations in the large bowel.

We have noted segmental involvement of the small intestine, i.e., several areas in the ileum as well as in the third part of the duodenum. It is interesting that one of the areas represented what we have elected to refer to as an acute manifestation, while the others were subacute. It would seem that the ileocecal level may serve as a barrier to involvement of the adjacent cecum, although occasional exceptions have been reported. In this connection it has been our privilege to explore and resect two chronic cases in which observations eight and ten years previously indicated that the process extended to the ileocecal valve. The examination of the specimens showed no further progression distal of the process. Owing to the lack of specificity from the standpoint of origin or pathological manifestations, it is hard to discount its occurrence at levels other than the terminal ileum. However, about 90 per cent of the lesions reported have involved the terminal ileum, and for this reason we are inclined to follow Crohn's concepts and classification.

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The Author

● Dr. Holloway, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1923; fellow American College of Surgeons; associate surgeon, Lakeside Hospital and out patient department; assistant clinical professor of surgery, Western Reserve University School of Medicine.

From the clinical standpoint one may divide the condition into four phases: First, the earliest manifestations of abdominal discomfort which may be vague or indefinite but in other instances may very closely simulate acute appendicitis. Second, the ulcerative stage which is characterized by varying degrees of abdominal cramps and diarrhea accompanied on occasions by some anemia and loss of weight. Third, the fibrosing or stenotic phase which is typified by cramps which may be obstructive in origin, together with intermittent bouts of diarrhea. On many occasions a mass is palpable in the right lower quadrant or pelvis, and the patient may have a considerable degree of anemia and emaciation. Fourth, that characterized by fistula formation, which fistula may be internal or external. The former may be established between loops of small or large bowel, particularly the sigmoid. External fistulas may appear in the abdominal wall or perineum. The first two phases probably represent the acute and subacute manifestations, while the last two are definitely chronic.

One should emphasize that the progression may extend over years and that on occasions there may seem to be a marked disparity between the severity of the symptoms and the extensive changes revealed by operation. Furthermore, in isolated instances the stenotic phase may manifest itself without any satisfactory history suggestive of progression through the early phases.

Grossly the acute forms are characterized by their sharp demarcation, their sponge-rubber-like consistency, the marked edema which varies from white to pink, and the enlargement of mesenteric nodes of the involved segment. There is usually an accompanying accumulation of intra-abdominal fluid in the acute form. Grossly the so-called subacute type is characterized by spongy consistency, sharp demarcation and desquamation of the mucosa, in some instances in its entirety. The mucosa has been re-

placed by a hemorrhagic exudate which together with engorgement is visible through the more or less normal peritoneum which accounts for the fiery red appearance of the lesion grossly. Its appearance at operation may suggest recent strangulation or some embolic phenomenon. The bowel may be very friable, and the two specimens of the subacute type reported in the literature (Jackman) were obtained incidental to perforation through handling. Hence, in all likelihood perforation may frequently occur spontaneously during this phase. After having passed through this reaction it would seem that an intestine so affected must necessarily continue ultimately to the stenotic or fistula stages. Grossly the chronic forms are characterized by their thickening, rigidity and tumor formation either because of their altered character or because of adhesions between adjoining loops or extensive inflammatory reaction in glands or the adjacent mesentery. The mucosa is extensively involved by ulceration varying in depth but largely distributed along the mesenteric border of the gut with areas in which the lumen is markedly diminished in caliber. There is little or no accumulation of intra-abdominal fluid in the chronic form.

From the microscopic standpoint there is nothing which is definitely characteristic of this lesion. In view of the fact that practically all specimens obtained are of the chronic or subacute types, we have very little conception of the microscopic appearance of the acute forms. However, one might assume that microscopically the acute forms might reveal slight ulceration of the mucosa with marked thickening of all layers of bowel due to associated edema and with an infiltration of cellular elements dependent upon the severity of the reaction. Histologically the subacute condition is characterized by the absence of mucosa with substituted hemorrhagic exudate and an underlying submucosal reaction which almost borders on abscess formation. The peritoneum is relatively uninvolved but intermediary layers reveal some degree of fibrosis indicative of previous inflammation. However, there is no demonstrable evidence of thrombosis. Histologically the chronic forms reveal ulceration of the mucosa of varying extent and depth with thickening of walls and stenosis due to fibrosis, and with an infiltration of inflammatory cells which may vary depending upon the severity of the reaction. Giant cells may be present.

From the standpoint of etiology, rather exhaustive attempts have been made to determine some specificity, but to date there is nothing that has proved convincing. Tuberculosis has been fairly well excluded. Experimentally, Reichert is said to have injected the corresponding lymphatics with a sclerosing agent and thus produced a lesion in the bowel which simulated the acute edematous lesion.

The question of differential diagnosis in the early phase is extremely difficult, and if exploration is carried out it is done with a diagnosis of acute appendicitis. At the moment we are referring to those instances in which the first symptoms have not extended back more than 36 to 48 hours. In our experience it may present any of the variations of symptoms associated with acute appendicitis. Thus far we have found no differential point which would justify a clinical distinction, although in some instances there is a history of a slight change in bowel habits for three to six months before the attack, i.e., several soft movements per day when previously there had been but one. On occasions there has been more in the way of cramps than we usually associate with appendicitis. However, we wish to emphasize that from a practical standpoint the differential diagnosis probably cannot and should not be attempted. While we are not certain, we are inclined to feel that X-ray studies would be of little value in the acute stages and in general would be contraindicated.

In our experience X-ray studies in the acute cases six to eight weeks following the establishment of the diagnosis by operation have failed to reveal any findings that were diagnostic. To be sure, in most instances there had been a complete subsidence of symptoms postoperatively. However, this may either indicate inadequacy of X-ray diagnosis in the acute phases or the absence of X-ray findings may accompany subsidence of the lesion. The latter possibility certainly supports conservative therapy in the acute phases when encountered at operation.

The chronic forms present much less of a problem from the diagnostic standpoint, but do require distinction from malignant growths and specific granulomas. However, for practical reasons excision would probably prove the method of choice in any event. X-ray studies in this type can be extremely helpful, and the so-called string sign of Kantor in many instances is almost diagnostic. Chronic ulcerative colitis may simulate regional ileitis, although the localization by X-ray of the lesion in the colon and the presence of mucosal ulceration as revealed by sigmoidoscopic examination aid materially in making the distinction.

There is some difference of opinion in regard to the course to follow when the acute case is encountered at operation. There is little support for immediate radical resection. It is our definite impression that some of these subside completely. In Koster's series of six cases subsequent intervention was not required during the period of observation and this coincides with our own experience. However, others have reported a very high percentage of ultimate inter-

ventions in the acute cases. When the cecum is uninvolved (100 per cent in our series and 90 per cent in reported series) we have routinely carried out appendectomy, not with the idea that appendectomy contributed therapeutically, but because it is reassuring to have removed the appendix should there be a chronic right lower quadrant complaint. If a radical procedure seems indicated subsequently, it can frequently be carried out more advantageously at a second operation.

Mixter has condemned the practice of appendectomy in the acute cases because of the danger of fistula formation. However, in the early manifestations in the presence of an uninvolved cecum there should be little danger of fistula formation as a result of the appendectomy. In any event, as Crohn has indicated, the fistulas frequently have their origin from the ileum rather than from the appendiceal stump. Hence they may develop incidental to the exploration rather than as a result of the appendectomy.

In so far as the chronic stenosing types are concerned, there is general agreement that short-circuiting anastomotic procedures or resection should be carried out, with the latter procedure in the greatest favor. In the majority of instances great benefit follows the above procedures, although it is not uncommon for those patients who secure a satisfactory result to experience two to three soft movements a day. Recurrences of symptoms are quoted in the neighborhood of 10 to 15 per cent, while Cutler mentions a much higher figure. However, in view of the occasional segmental involvement recurrences might well be anticipated.

Lakeside Hospital.

FOOTNOTE: A series of lantern slides were presented of examples drawn from our own experience with five acute, one subacute and four chronic cases. They were presented from the standpoint of gross appearance in the sequence in which we believe the lesion progresses.

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Stopping Smoking

To expect one to change 20-year-old habits of physiology is not too much, but to expect him to change psychological habits of this long standing, to alter his whole scheme of reacting to his surroundings is to expect more than is just or reasonable. Most prefer to go on with themselves as they have been rather than start anew with a personality that is strange and which may be, after all, less efficient and less satisfactory than that moulded for them by the drug. So they keep on smoking, but they advise others not to start.

Tobacco contains drugs which have a powerful effect upon the sympathetic nervous system, drugs which are definitely habit forming. That smoking is a vice is certain but that, as B.L.T. has said, is a minor vice, is equally sure, for most of us smoke immoderately and yet work hard and effectively and live long. It is even conceivable that smoking accounts in part for our ability to meet the increasing strain of business life without breaking. It is probable that for certain psychological types it is more beneficial than harmful. I feel that the psychiatrists would do well to investigate this aspect of the drug and perhaps prescribe it for their vagotonics.

What role it has in producing disease is uncertain. To find that the blood pressure of smokers is not higher than that of non-smokers means this and nothing else. It does not mean that the repeated rises of blood pressure, the repeated lashes of the sympathetic nervous system do not affect the coronary vessels and in the long run lead to sclerosis and occlusion. It is quite conceivable that they do, and no one is justified in saying that the increase of sudden cardiac deaths in men under 60 is not bound up with the recent increase in cigarette smoking. We know that cigarette smoking plays a role in the etiology of Buerger's disease and there is reason to believe that it should do some permanent damage to the whole peripheral vascular system. It must be definitely injurious to the sympatheticotonic personality.

All of these questions are important, are undecided, and are extremely difficult to investigate. That they should be investigated carefully by the medical profession or the public health service is obvious. It is an anachronism that as a people we should allow the cigarette manufacturers entice young men and young women to develop the habit of using so strong a drug without knowing more about the effects of its use.—Jerome R. Head, M.D., Chicago; Ill. Med. Jr., Vol. 76, No. 3, Sept., 1939.

"Live dangerously," wrote Nietzsche; "live harmoniously" prescribes the doctor; for "argument may be injurious to arteries."—Fetterman.

Treatment of Gas Gangrene

E. P. McNAMEE, M.D. and C. R. LULENSKI, M.D.

INTEREST in the treatment of gas gangrene has been stimulated by the reports of Kelly[1,2,3] on the treatment of this condition by roentgen ray. His statistics show that the mortality rate is much reduced by this method of treatment.

Previous to the use of roentgen ray therapy for gas gangrene, the mortality rate was 50 per cent or higher.[4] Since the advent of roentgen ray therapy, the mortality rate has been reduced to about 10 per cent.[5]

In the usual hospital practice, the cases of gas gangrene fall into two groups: First, that in which gas gangrene develops as a result of an injury in an otherwise healthy patient. Second, that in which gas gangrene develops in a patient who has diabetes and arteriosclerosis.

In the first group, the mortality rate can be kept below 10 per cent; in the second, it has been impossible to reduce it below 50 per cent. Fortunately, most cases occur in the first group and it is with this group that we are most concerned.

Some knowledge of the bacteriology and clinical aspects of gas gangrene is essential before consideration of therapeutic measures.

BACTERIOLOGY

Gas gangrene is caused by certain anaerobic gas bacilli known to be pathogenic to man.[6,7] These are: (1) Clostridium Welchii, (2) Vibrion Septique, (3) Clostridium Novyi, (4) Clostridium Histolyticum, (5) Bacillus Enteritidis Sporogenes, (6) Bacillus Fallax, (7) Bacillus Putrificus.

These are large gram positive bacilli with incubation period of one to four days. They are separated into the proteolytic and saccharolytic groups. In the proteolytic group are the bacillus enteritidis sporogenes, bacillus histolyticus and bacillus putrificus. Members of this group are not very pathogenic in themselves but complicate wounds due to their intense proteolytic action. The others are in the saccharolytic group, indicating that sugar is fermented by their activity. Clostridium Welchii, of this group, is present in 80 to 90 per cent of the cases of gas gangrene.

In about 50 per cent of the cases, more than one type of gas bacillus is found.[8] The bacteria may live in symbiosis. When streptococci are the symbiotic organisms, the virulence of the infection is increased. If staphylococci are present in symbiosis, the virulence is decreased. In man, the gas bacilli grow readily only on devitalized tissue, especially muscle. In some cases, this makes it difficult to obtain positive cultures. Where colon bacilli are present, a careful differentiation must be made. The colon bacillus is often a notable gas former.

In addition to crushing injuries, certain unusual points of entrance of gas bacilli are: Incisions, postoperative stumps, the eye, the uterus, infection from ruptured bowel and hypodermic injections. The last deserves special mention. Of 86 cases of gas gangrene following hypodermic injection, reported in the literature, 76 have died.[9] This is a mortality of 88.4 per cent. It is important to note that many of these were not recognized until autopsy.

PATHOLOGY

Under anaerobic conditions and especially in devitalized muscle, gas bacilli decompose the invaded tissue. The glycogen present, when destroyed, liberates carbon dioxide. Toxins are formed by the bacteria and calcium salts are freed. These are thought to be favorable factors for the growth of the bacilli. The toxins and carbon dioxide saturate the adjoining muscle. As a result of this, the muscle fibers become swollen within the sheaths, so that strangulation occurs. Such dead tissue provides an ideal environment for spread of the infection. From this, one can understand why the disease spreads in a longitudinal rather than a transverse direction. Under these circumstances, the muscle fiber is separated from the surrounding interstitial tissue by toxic fluid. The fiber loses its striations and stains a uniform eosin tint. As liquefaction and decomposition progress, the entire muscle fiber disintegrates.[10]

The Authors

● Dr. McNamee, Cleveland, Ohio, is a graduate of the University of Pennsylvania School of Medicine, 1913; diplomate American Board of Radiology; Fellow American College of Radiology, American College of Physicians; member American Roentgen Ray Society, Radiological Society of North America; roentgenologist, St. Alexis Hospital.

● Dr. Lulenski, New York City, is a graduate of the University of Michigan Medical School, 1936; member of Cleveland Academy of Medicine; chief industrial surgery resident, St. Alexis Hospital, Cleveland, 1938-1939; assistant resident in surgery, Memorial Hospital, New York City.

* From the Departments of Surgery and Roentgenology, St. Alexis Hospital, Cleveland.

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Absorption of the toxins causes a marked toxemia. These toxins are strongly antiphagocytic and, in the case of the vibrion septique, are markedly cardiotoxic.[9] Septicemia may occur. In such instances, the outcome is almost always fatal. The terminal stages of the disease reveal marked regional extension with overwhelming toxemia or septicemia.

DIAGNOSIS

One should be on the alert for the development of gas gangrene in all crushing injuries. Pain in the injured part is usually the first symptom. This is accompanied by an increase in the pulse rate out of proportion to the increase in the temperature. Radiographic examination at this time may reveal gas in the tissues, although the gas cannot be detected clinically.[11] Later, the tissues become discolored and crepitation is present. The crepitation usually extends beyond the limits of devitalized muscle. A break in the skin is usually present. A thin, brownish, sometimes foamy material, with a foul odor, can be expressed from the wound. Examination of this fluid usually shows large, typical bacilli on direct smear and gas-producing organisms on culture. It must be remembered that gas bacilli need dead tissue on which to thrive.

PROPHYLAXIS

In all compound fractures and crushing injuries, a prophylactic injection of combined gas gangrene and tetanus antitoxin should be given: Gas gangrene, 2,000 units; tetanus antitoxin, 1,500 units. This should be given as soon as possible after the trauma. Thorough debridement is indicated. If there is a probability that the wound is still contaminated, it should not be closed. If gas gangrene is suspected, roentgen ray therapy should be given immediately.

In all amputation stumps, the following additional precautions should be followed, as enumerated in a report from the Hospital for Joint Diseases, New York City.[12]

1. A piece of muscle at the site of the amputation should be removed at operation and cultured.
2. In the lower extremity, the amputation should be mid-thigh, whenever possible.
3. In legs that have been so badly damaged that an immediate amputation is necessary, a disarticulation at the knee should be performed, if possible. By this plan, none of the muscle planes and only a few fascial spaces are opened. Later, a secondary amputation may be performed.
4. If the thigh is gangrenous below amputation level, the stump should be left open. This is done because pathogenic organisms are probably being carried in muscle planes and lymph spaces.
5. Guillotine amputation should be performed because it is the most rapid procedure, and is associated with the smallest amount of trauma.
6. In cases of gangrene, the gangrenous area should be carefully draped before being sent to the surgery. A gangrenous area should never be exposed in the operating room.
7. No tourniquet should be used.

TREATMENT

When gas gangrene is discovered, active treatment should be instituted immediately. This consists of general and local measures.

The general treatment includes the usual supportive measures; such as, proper diet, nursing care, intravenous fluids and transfusions.

Gas gangrene antitoxin is commonly used as a therapeutic agent and we feel that it should be used in the majority of cases. Sulfanilamide and prontosil have been used.[13,14] Favorable results are probably due to checking symbiotic growth of streptococci. Kelly states that large doses of sulfanilamide have been definitely inhibitory to any beneficial effect the X-ray may produce. He prefers the use of X-ray treatment without the aid of large doses of sulfanilamide.[15]

LOCAL TREATMENT

The infected area should be exposed. In wounds of the extremities, sutures should be removed. Manipulation of the tissues should be restricted to a minimum. Some insert Dakin's tubes into the tissues and instill through them oxidizing agents, such as: Potassium permanganate, 1:500; Dakin's solution and potassium chloride, 2 per cent, and, at times oxygen.

Amputation for gas gangrene of an extremity has been an accepted practice in the past. However, since much better results have been reported by the use of other methods, amputation for gas gangrene should be abandoned.

Roentgen ray therapy, applied to the area involved by gas gangrene is one of the best methods of treatment available at this time. Kelly has popularized this method and his reports show that the mortality rate can be reduced to 11.3 per cent.[5]

Roentgen ray therapy should be given as soon as the diagnosis of gas gangrene is made. The usual X-ray equipment in any hospital is adequate for treatment of extremity cases which comprise most of the cases. Kelly recommends that 100r be given twice each day for two to four days, depending upon the clinical course. Our technique has varied with the case. In general, we have given one treatment daily for about four days. In a few cases, we have given two treatments the first and second day and one treatment the third and fourth day. We use 89 k.v., 5 m.a., 2 mm. aluminum filter, in addition to the inherent filtration, H.V.L. 3 mm. aluminum; 10-12 inch distance, and a field large enough to extend well beyond the limits of the involved area, 100r at each treatment. Cases in which the trunk is involved require higher voltage—not less than 140 k. v.

In the cases which respond to treatment, there

is usually a definite improvement in the patient's condition within 12 to 24 hours after the first roentgen ray treatment. The temperature is lower, the patient is less toxic, and most of the symptoms are less pronounced. After several days, the appearance of the wound changes. There is sharper demarcation between the gangrenous area and healthy tissue, less discharge, less crepitation, and the wound is less moist. In the usual course of events, the gangrenous tissue sloughs out and a clean, granulating wound remains. Subsequent surgical procedures may be required; such as, further amputation or plastic operation.

CASE REPORTS

Cases admitted to St. Alexis Hospital since February 3, 1937:

L. G., white, female, aged 54, was admitted to the hospital soon after an auto accident. There was a laceration of the scalp on the right side. Part of the scalp was absent over the skull in the parietal region. There was a simple fracture of the left fibula. Prophylactic dose of tetanus antitoxin was given, followed by gas gangrene antitoxin. Next day, temperature was 101. There was crepitation about the wound, accompanied by a foul odor and much dark gray discharge. Culture made at this time revealed the presence of gas bacilli. The first therapeutic dose of gas gangrene antitoxin was given 23 hours after the injury and 42,500 units were given in six days. First roentgen ray therapy of 70r units was given when culture was reported positive three days after the injury. Roentgen ray therapy was repeated once each day for three days following. The wound showed some improvement about one week after the first roentgen ray therapy but skin grafts were eventually required. Although the wound was granulating, during the first 17 days septic temperature up to 101 persisted. It was thought that necrosis and secondary infection were the causes. Roentgen ray therapy was repeated on the seventeenth day. On the twentieth hospital day, the temperature, pulse and respiration were normal and remained so. There was final and complete recovery. Patient discharged on the sixty-fifth day.

(2) M. J., white, male, aged 22, admitted shortly after almost complete traumatic amputation of left leg below knee, as the result of an automobile injury. There was profound shock. Prophylactic doses of gas gangrene and tetanus antitoxin were given. Debridement of the stump was performed eight hours after injury. Forty hours after injury, temperature 102.8, pulse 140, white blood count 24,400. Culture showed gas bacilli. From this time to four days later, 90,000 units of gas gangrene antitoxin were given. The stump was opened wide and Dakin's tubes inserted with continuous oxygen. Later, hydrogen peroxide irrigations were used. Fifty-two hours after injury, roentgen ray therapy of 70r units was given and repeated in eight hours with definite local and general improvement. Six treatments were given in four days. Reamputation of the stump was necessary. Reamputation was performed on the forty-fifth hospital day. On the forty-sixth day, temperature 102, pulse 140, and much pain in stump. Because of the possibility of gas gangrene, roentgen ray therapy was given daily for three days. On the forty-seventh day, culture of discharge was negative for gas bacilli. On the fiftieth hospital day, temperature, pulse and respiration became normal and stayed there. Complete recovery ensued. Patient discharged on the seventy-fifth day.

(3) T.K., white, male, aged 60, admitted with severe compound fracture of left leg and other injuries following an auto accident. The left leg was amputated below the knee with debridement. Twenty thousand units of gas gangrene antitoxin were given at six hours. Two days later, temperature 101.6, pulse 104, white blood count 15,500, with crepitus about stump and pungent odor. Culture showed gas bacilli. Eight hours later (2 days and 8 hours after accident), roentgen ray therapy of 70r units was given repeated daily for four days and once more after an interval of three days. Another 20,000 units of gas gangrene antitoxin were given on the third day after accident. Stump gradually healed and patient was discharged on the eighty-third day.

(4) J.H., white, male, aged 52, admitted for mid-thigh amputation for arteriosclerotic gangrene. Six days after operation, there was foul discharge with crepitation and pain in stump. Temperature 100.8, pulse 90, white blood count 24,000. Stump was opened wide and hydrogen peroxide irrigations were given. Gas gangrene antitoxin started and 240,000 units were given in four days. On the day gas gangrene was recognized, roentgen ray therapy of 100r units was given and repeated the next day. There was local and general improvement. B. pyocyaneus infection developed and delayed healing. On the eighth postoperative day, culture was positive for gas bacilli and again on the fourteenth day, but not thereafter. Roentgen ray treatment of 100r was given on the eleventh and twelfth postoperative days. Complete recovery, the patient was discharged on the fifty-second day.

(5) R.M., white, male, aged 45, admitted with incomplete traumatic amputation of left middle and ring fingers. Seventeen hours after injury, debridement and middle finger amputation performed. At this time, a suspicious drainage was cultured and showed gas bacilli. The next day, temperature 101.4, pulse 100. Roentgen ray therapy of 100r units was given 47 hours after injury. Six treatments were given in four days. On the second day of roentgen ray therapy, gas gangrene antitoxin was started and 140,000 units were given in three days. During this time, the wound was opened wide and potassium permanganate soaks were applied. Temperature, pulse and respiration became normal in four days. On the twenty-first day, the left ring finger was amputated with preoperative and postoperative roentgen ray therapy. Patient was discharged on the thirty-fourth day.

(6) M.O., white, male, aged 29, admitted with severe contusion avulsion of one-half the circumference of the right forearm and distal arm. Two hours later, repair was made and prophylactic dose of gas gangrene-tetanus antitoxin was given. Thirty-six hours after injury, temperature 104, pulse 130, white blood count 11,800. Extremity was swollen and painful. Sulfanilamide (5 grams daily) was given and continued for 10 days. Culture was negative for gas bacillus. Next day, there was not any improvement and culture was postive for gas bacilli. Wounds were opened wide and hydrogen peroxide and Dakin's solution irrigations were started. Gas gangrene antitoxin was given to a total of 192,500 units in 11 days. Right shoulder

disarticulation was performed 72 hours after injury, because of spread of gangrene. Following this, blood transfusion was given and repeated four times in 14 days. Shortly after the amputation, roentgen ray therapy of 100r units was given to the right shoulder girdle area and eight treatments were given in the five days following. During this time, the wound became negative for gas bacilli and improved. Two days after amputation, blood culture was positive for anhemolytic streptococcus. In spite of improvement locally, patient declined steadily and died on the eighteenth day. Autopsy revealed pulmonary edema, bronchopneumonia of the left lung, infarcts of spleen, cloudy swelling of the liver and kidneys, and diffuse, subacute myositis of the right pectoralis major and external oblique muscles, but there was no evidence of gas gangrene.

(7) F.G., white, male, aged 54, admitted with lateral dislocation of the right knee and discolored 3 cm. x 3 cm. area over the medial condyle of the femur. Fourteen days later, this area showed crepitation and marked discoloration. Temperature 102.2, pulse 105. The next day, a prophylactic dose of gas gangrene-tetanus antitoxin was given. The day following, sulfanilamide (3 to 4 grams daily) was started and continued for eight days. On the twenty-first day, culture was positive for gas bacilli. Roentgen ray therapy of 100r units was given. This was repeated daily for four days. Temperature 100 on the last day. There was progressive improvement and patient was discharged on the forty-second day.

(8) M.L., white, female, aged 62, admitted with arteriosclerotic gangrene of the right great toe and diabetes mellitus. After 10 days medical management, a lower thigh amputation was performed. On the ninth postoperative day, culture from stump drainage was postive for gas bacilli. General condition was very good. Temperature 99, pulse 90. The next day, temperature 102.6, pulse 126. Gas gangrene antitoxin was administered, so that 140,000 units were given in four days. Roentgen ray therapy, 100r units, was given on the tenth postoperative day. Three treatments were given in four days. At the end of this time, the stump was improved and culture was negative for gas bacilli. On the twentieth postoperative day, a crepitant abscess on the sacrum was incised. Culture was negative for gas bacilli. Roentgen ray therapy, 100r units, was given to the sacral region three times in four days, without appreciable improvement. In spite of transfusions and further local and general therapy, the patient expired on the twenty-ninth postoperative day. At this time, the stump was healing but necrosis and infection in the sacral region were increasing.

(9) P.L., white, male, aged 49, admitted with severe, much-soiled, deep laceration of right arm. In one hour, prophylactic dose of gas gangrene-tetanus antitoxin was given. In two hours, debridement was done. Six hours after injury, with temperature 100, roentgen ray therapy of 100r units was given because of the possible presence of gas gangrene. The next day, prophylactic antitoxin dose was repeated. Temperature 103.6, pulse 116, white blood count, 12,000. Clinical diagnosis of gas gangrene was made and confirmed by culture. Roentgen ray treatment was given twice this day, with two more in the next three days (500r total). During this time, a total of 65,000 units of gas gangrene antitoxin were administered. Condition improved, so that 10 days after admission temperature stayed below 99.5. Skin grafting was necessary. Patient discharged on fifty-fourth day.

DISCUSSION

Our experience with this small group of cases of gas gangrene indicates that much better results can be obtained when roentgen ray therapy is used in addition to the other accepted methods of treatment. In most of the cases, the response to roentgen ray therapy was striking, leaving little doubt as to its beneficial effect.

Of nine cases treated, seven recovered, two died; a mortality rate of 22 per cent. Autopsy in one of the fatal cases showed no evidence of gas gangrene, but did show: Bronchopneumonia, infarcts of spleen, cloudy swelling of liver and kidneys. Before death, blood culture was positive for anhemolytic streptococcus. The evidence indicates that this patient did not die of gas gangrene; therefore, the mortality rate due to gas gangrene is 11 per cent.

In order to compare results in cases of gas gangrene treated with and without roentgen ray therapy, a study was made of the records of nine previous cases. These cases were treated in the hospital between October, 1930, and August, 1936. In general, the treatment for this group of cases was the same as for the group reported above, except that they did not have roentgen ray therapy. Following is a comparison of the two series:

Nine cases treated by roentgen ray therapy:

7 recovered, 2 died—Mortality 22%

9 cases with no roentgen ray therapy:

5 recovered, 4 died—Mortality 44%

Therefore, in our hospital, the mortality rate has been reduced at least 50 per cent by the use of roentgen ray therapy.

We believe that roentgen ray therapy should be used in all cases of gas gangrene and that in order to obtain the best results it should be given as soon as the diagnosis is made or even suspected.

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The authors express their appreciation to the Doctors of the Staff for the privilege of reporting these cases.

Functional Sterility in Women

BORIS B. RUBENSTEIN, M.D.

FUNCTIONAL sterility comprises all sterility in women who have normal menstrual cycles, patent Fallopian tubes, ovaries of normal size and consistency, and no pelvic inflammatory diseases. Sterility in such women can be due to one or more of the three causes by which the sterility may be classified.

1. Failure of ovulation.
2. Failure of implantation.
3. Spontaneous abortion at the next menstrual period.

In our experience, the first cause accounts for more than 60 per cent of the functional sterility cases we have seen.

DETECTION OF OVULATION

Since failure of ovulation is so important a cause of functional sterility, it is of obvious importance to determine its occurrence. Many methods are now employed to determine the time of ovulation. Among the most reliable are:

1. The electrical method of Burr and coworkers[8] which requires daily observation of the patient.

2. Endometrial biopsy which when taken after ovulation, i. e., in the premenstrual phase, shows an endometrium with tortuous and enlarged glands (secretory phase).

3. Chemical estimation of hormone level in blood or urine which is expensive, laborious and yields its information many days later.

4. The basal body temperature—vaginal smear technique[1,2] which in our hands has proved to be as reliable as any, and less cumbersome than most. The patients were instructed to take rectal temperatures in the morning before arising from bed, and at the same time each morning; they were also taught to make their own vaginal smears which were dropped into a jar of fixative and brought for study weekly. The changes in the temperature and smears depend upon the cycle in ovarian activity, in the cycle of hormone production.

After the menstrual flow ends, a follicle starts to mature in one of the ovaries. As it grows, it produces a hormone, estrone (theelin) which, besides its action on the uterus, stimulates proliferation of the vaginal mucous membrane as shown by Papanicolaou[3]. As the vaginal mucosa thickens, its superficial cells grow away from their blood supply, and they undergo the same type of degenerative changes as seen in the skin, namely pyknosis of their nuclei and keratinization of cytoplasm. This process is called cornification. Just before or at the time of rupture of the follicle, lutein cells, producing progesterone, appear in the granulosa[9]. Hisaw, Greep and Fevold[4] have shown that the effect of progesterone is to produce desquamation (and aggregation and folding) of the vaginal mucosa that had proliferated under the influence of estrone. The time of ovulation shows up in the vaginal smears as a sloughing of the cornified mucosa. (Fig. 1).

Another effect of estrone is depression of the basal metabolism (Rubenstein[2], Sherwood[5]) and therefore of the basal body temperature (Rubenstein[2], Zuck[6]). Just how estrone accomplishes this is not clear—perhaps by inhibition of the pituitary which Collip[7] has shown, produces a metabolism-stimulating hormone. Certain it is that upon the appearance of the corpus luteum hormone, progesterone, both the metabolism and the body temperature rise sharply. In this series whenever the temperature rose more than 1.2°F. it was considered evidence of ovulation. Whenever vaginal cornification and depression of the basal body temperature coincided, we felt justified in assuming the existence of a maturing follicle. Whenever there was massive desquamation of vaginal epithelium and a sharp rise in temperature, we diagnosed ovulation. In four patients ovulation was found to occur during the menstrual flow. Intercourse was advised during menstruation and pregnancy followed in each case.

In normal, control subjects, the following was found to be the case:

1. That ovulation (in each woman's cycle) usually occurs at a characteristic time; that there is a fertile and a sterile period; but that calendar methods frequently fail to locate the fertile period.

2. That anovulatory menstrual cycles occur in all women we have studied; that the frequency

The Author

● Dr. Rubenstein, Cleveland, Ohio, is a graduate of Rush Medical College, University of Chicago, 1933; member American Association for Study of Internal Secretions; American Physiological Society; visiting physician, University Hospitals; Rockefeller Foundation Fellow, Western Reserve University.

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of anovulatory cycles increases with advancing age.

3. That consequently a woman's cycle may have to be followed for a year before it is safe to decide that ovulation does not occur spontaneously.

MANAGEMENT OF STERILITY

The present report is based on our experience with 35 cases[1] of functional sterility. Of these patients, only 16 ovulated spontaneously at any time, and 14 have become pregnant with no treatment except restriction of intercourse to the fertile period. Exposure during the fertile period of the first cycle was rarely followed by pregnancy. In one case, there was exposure at the presumptive time of ovulation in 12 successive cycles; pregnancy followed finally. In most patients exposure at ovulation during two or three successive cycles sufficed. Nineteen patients failed to ovulate during six to twelve months of continuous observation. Of these 19 patients, 12 have received an extract of pregnant mare serum, gonadogen*. Each patient received an intravenous injection of from 30 to 60 units on the day of the cycle on which in previous months she had shown her maximum vaginal cornification and minimum basal temperature. There was no significant sensitivity to this material in any of our patients, though we always took the precaution of skin-testing. We advised intercourse 12 hours after the injection. Although six of the twelve patients who received the injections showed what we considered a favorable response, i. e. marked vaginal desquamation and sharp rise in basal body temperature within 24 hours, only four of these patients have be-

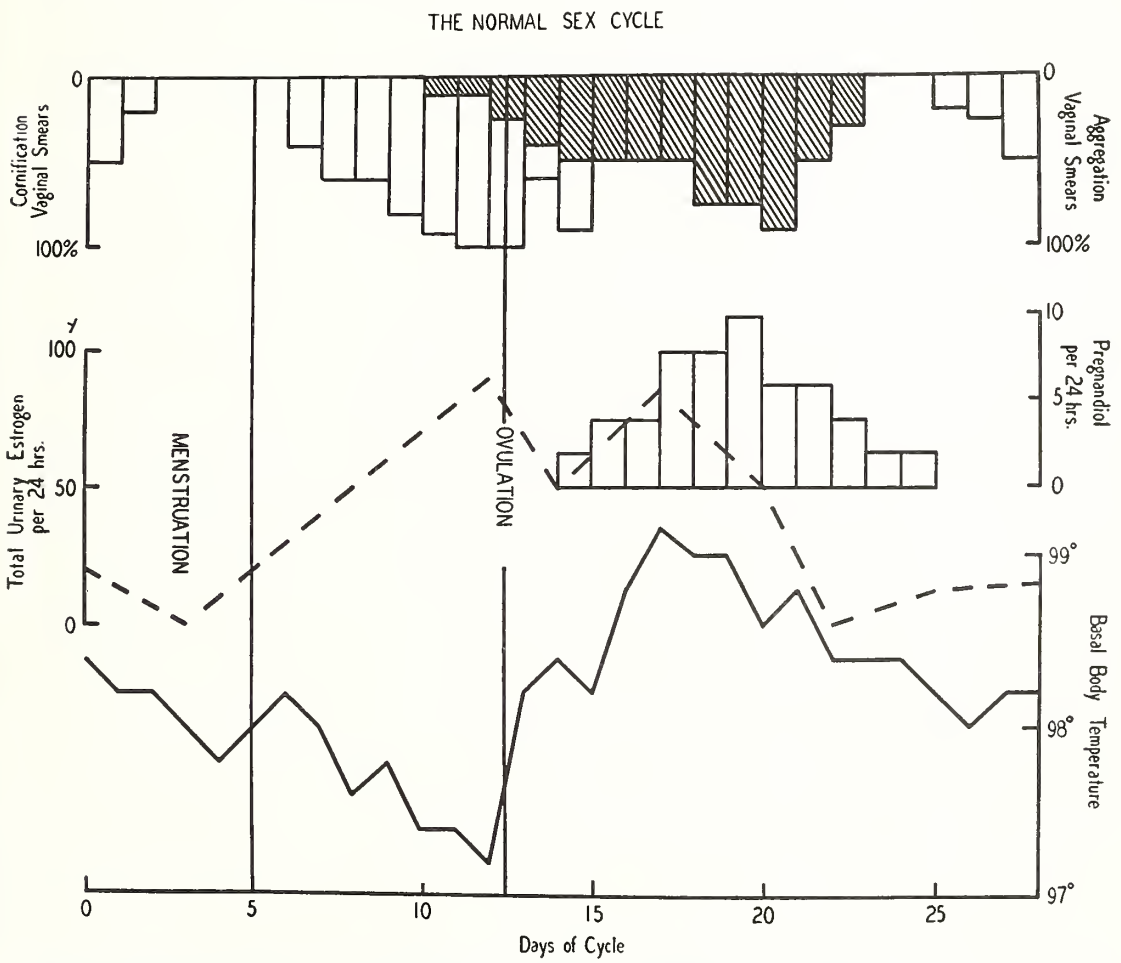


Figure 1: The normal sex cycle: the solid curve represents the basal body temperatures; the broken curve presents the excretion of estrogenic substances (female sex hormone). The clear blocks of the center are the excretion of pregnanediol sodium glycuronidate (metabolite of progesterone, the corpus luteum hormone). The uppermost set of blocks presents the vaginal smears—the clear blocks indicating cornification, the blocks aggregation. The broken curve is a composite from the date of Gustavson et el., Pedersen-Bjergaard, and Palmer. The pregnanediol excretion is after the data of Venning and Browne. The temperature and smear representation is from my own data.

*Gonadogen, 30 units, intravenously was given to 12 patients on the day when the vaginal smear indicated maximum spontaneous cornification (but not ovulation). Antuitrin S was given to 7 patients in 5x500 unit doses during the two premenstrual weeks of three successive months.

come pregnant. We plan to repeat the injection in the patients who did not become pregnant. The other seven patients (of the 19 who failed to ovulate spontaneously) received 5x500 units of an extract of pregnancy urine during the final two weeks of three consecutive cycles. Of these seven patients, only one has become pregnant.

THE OUTCOME OF THE PREGNANCIES

Unfortunately, of the 19 pregnancies, nine have terminated by abortion in the first trimester. All the pregnancies were diagnosed by repeatedly positive Friedman tests as well as by physical examination. Analysis of the cases shows that the abortions occurred in the group of spontaneously ovulating women. The four patients whose ovulation came during the menstrual flow, and whose infertility was therefore accidental, had uncomplicated pregnancies. The nine abortions occurred in those ten women who ovulated spontaneously and became pregnant. It is therefore probably not too daring to attribute the infertility of this group to spontaneous abortion. Those patients whose ovulation occurred in the final week of the menstrual cycle failed to become pregnant. Since ovulation occurred late in their cycles perhaps there was insufficient time for implantation of the ovum before the onset of the next menses. The effect of progesterone was not yet studied in these patients.

TABLE I—Summary of results in the investigation of 35 cases of functional sterility in women.

	Vaginal smear-temperature responses	Pregnancies	Spontaneous abortions	Total number cases
Spontaneous ovulations	16	14	9	16
1. During menstrual flow	4	4	0	4
2. During "fertile period"	10	10	9	10
3. During premenstrual period	2	0	0	2
Anovulatory (6 mo. or more)	....	....	....	19
1. Ovulations induced by Gonadogen*	6	4	1	6
2. Ovulations induced by Antuitrin S*	2	1	1	2
3. No response to treatment	....	....	....	11

SUMMARY

The determination of the time of ovulation assists materially in the rational management of sterility cases.

We investigated 35 patients. Sixteen ovulated spontaneously. In five, ovulation was induced. Nineteen pregnancies occurred. Nine pregnancies terminated by spontaneous abortion.

All abortions occurred in the group of 10 patients who ovulated spontaneously, and at the expected, mid-interval time.

Ovulation was induced in four of twelve patients who received 30 to 60 units of an extract of pregnant mare serum. Pregnancy followed, but none has had time to come to term.

*The gonadogen was furnished through the kindness of Dr. E. Gifford Upjohn of the Upjohn Company.

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1. Eight of these patients are from the Sterility Clinic of Lakeside Hospital; 27 are the private patients of Drs. W. H. Weir, J. L. Reycraft, N. E. Clayman, J. L. Bubis, D. Baumgartner, S. J. Stone, F. Haufreucht and B. Yasinow.

I am glad to acknowledge the friendly cooperation of Drs. J. L. Reycraft and N. E. Clayman in making the facilities of the Sterility Clinic of Lakeside Hospital, Cleveland, available to me.

Tuberculosis Among College Students

During 1937-1938 over 64,000 students were given tuberculin tests with 25.8% showing positive reactions. Since 1932-33 when the first figures were collected there has been a steady increase in the number of tests and a slow but steady fall in the percentage of reactors. "The value of the tuberculosis program to the individual student, whether he be the patient or the protected, is incalculable", reports the Committee. "The effect of finding tuberculosis is justified by the educational value alone. It is a demonstration of how lives can be saved and the community safeguarded. This is hygiene that actually operates."—Ann'l. Rep. Tuber. Comm. of Amer. Student Health Assn., 1937-1938.

The treatment of pulmonary tuberculosis demands little knowledge of drugs but much about the immediate and prolonged education of patients.—Brown, Lawrason, Tuberculosis Thesis.

The Tumor Clinic of the Cincinnati General Hospital

A Record of Its First Decade

WILLIAM M. MILLAR, M.D., and MINNIE LANDEN, A.B.

THE Tumor Clinic of the General Hospital of the City of Cincinnati and the College of Medicine of the University of Cincinnati has just completed the first ten years of its existence. In this monograph we desire to summarize the Clinic's activities within that period, and to discuss a few of the problems connected with such a unit.

PART I

Generally speaking cancer clinics may be classified under two headings. The first is the so-called "private clinic" group which receives and treats individuals who pay for services rendered and who desire and expect to do so. Of course, in addition these clinics treat many of their cases for nothing or for what is practically next to nothing). The second kind is one that is attached to some large charity civic hospital and administers to its patients gratis. The latter is frequently run in connection with a medical school, and the physicians in charge are generally members of its faculty. Students are authorized and permitted to take histories and examine patients under supervision of the doctors in authority. The Cincinnati Clinic belongs to the latter group.

The end results with regard to permanent cures, or so-called "survival cancer-free", between the two groups, cancer and charity, are remarkable. Various reasons have been given for this. One is that the educated and alert patient will seek his physician's advice in the early stage of his disease. The average educated public is rapidly becoming cancer conscious and it may be safely said that among the higher brackets neoplasms are usually seen in an early state.

Patients of average means, or better, are also able to take the period necessary for the protracted treatments that are so often necessary in the modern fractional dosage as applied to radium and X-ray therapy. They will also come in and see a doctor much more quickly because economically, as we have stated, they are better able to miss work, if needs be, for a protracted period. On the other hand, for example, an ignorant colored woman or white female of the lower financial scale with a home and several children to worry about, will often wait for weeks and months hoping that her bleeding will stop or that her ulcer will disappear before she finally drags herself into the clinic. Again the statistics of a general city hospital are influenced by the fact that terminal cases of the so-called lower classes are sent in by their private physicians and family to die. This is especially true when home nursing and bed care become a serious problem. For example, of 1098 cases of malignancy admitted to the Cincinnati General Hospital between 1920 and 1929, 50 per cent died on the wards. It is no secret that cases which have been unsuccessfully dealt with by private physicians will be sent in to a public charity hospital when the patient's financial resources have become exhausted. Once a patient has been treated it becomes a much more difficult condition to figure out just what surgery, if any, or what the proper dosage of X-ray or radium should be and the final results of such "second hand" cases are never gratifying. Indeed, certain large clinics will refuse to handle such individuals and will refer them elsewhere, generally to a charity civic hospital. The age of the patient is also a factor—45 per cent were over 60 years of age when admitted to the Cincinnati Clinic with cancer between 1929 and 1938.

These skeptics who hold to the creed that the "old-fashioned" family doctor is all-sagacious and all-wise and who question the statement that there should be specialization with regard to malignancies may be so answered:

1. At the present time it is safe to say that at least 85 per cent of all treated cases with cancer are dead within five years. Of the untreated cases the percentage must be at least 99 per cent.

2. Cancer is now responsible for more deaths of human beings than any other disease, except for those of cardiac origin.

3. An early diagnosis in cancer is frequently difficult. True, any one can diagnose a full-blown carcinoma when the patient is cachetic, anemic, and practically moribund. But to be able successfully to pick out a small breast cancer

Submitted April 20, 1939.

The Authors

Dr. Millar, Cincinnati, Ohio, is a graduate of Johns Hopkins University School of Medicine, 1927; director Tumor Clinic, Cincinnati General Hospital; assistant professor of surgery, University of Cincinnati.

Miss Landen, Cincinnati, Ohio, is a graduate of the University of Cincinnati; medical social worker of the Cincinnati General Hospital Tumor Clinic.

or a very early squamous cell of the posterior portion of the mouth, to cite but two examples, is a very different story. That requires training and long clinical experience and is not gleaned from textbooks or gotten from a practice that will see but two or three neoplasms a month.

To demand equal end results from a city charity hospital that one would expect and get from some of our larger private paper-writing clinics that pick and choose their patients would be unfair. It just cannot be done! However, what a Tumor Clinic of this kind can do is:

1. Give relief from pain and provide palliative therapy in far advanced cases.

2. Increase a fair percentage of patients' lives from one to three years, during which at least part of their time they are pain-free, and are perhaps able to carry on with their activities in a limited manner.

3. Rule out non-malignancy to the peace and frequent comfort of the patient who came to the clinic because he is afraid that he may have a neoplasm. For example, in our clinic there were 1,502 patients seen in the last ten years who had no cancer but who had been sent or came because they thought that they had cancer.

4. Get an occasional early case which can be saved to live five, ten or more years cancer-free.

5. Train doctors and medical students to think and become "cancer minded". This applies equally to the visiting staff, the "hospital white coats" and the attending medical students.

6. Collect microscopic specimens for pathologic study. The biopsy is becoming more and more an important factor in these days of early diagnosis.

7. Collect adequate histories and case reports from which studies can be made with regard to optimum treatment, care, and so forth.

PART II

The Tumor Clinic* was founded in 1928 by a group of interested physicians and laymen under the direction of the Public Health Federation. Figure I will give the reader an idea of its present ramifications. As we have said, the clinic is under the control of the Medical College of the University of Cincinnati and the General Hospital of the City of Cincinnati and is under the supervision of the Department of Surgery. In the autumn of 1932 a director was appointed to take charge and now holds the rank of Assistant Professor of Surgery and with him since 1937 is an assistant director with the rank of Instructor. At the clinic sessions, which are held three mornings a week†, are also present a part time recording secretary, two nurses, and three housemen. These three doctors are the resident of roentgentherapy, a pathologist, and a surgical

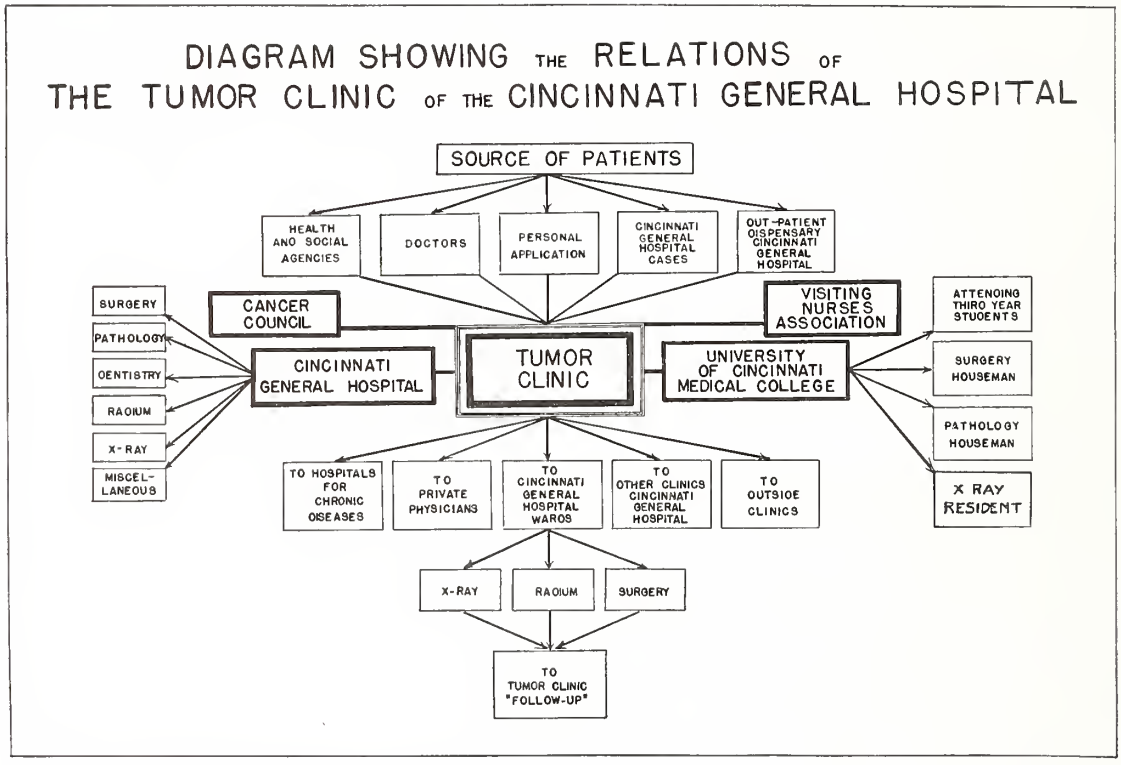


FIGURE 1.

*The word "tumor" was used because it was feared that word "cancer" would unduly frighten patients.

†In the beginning there was only one meeting, in February, 1932, there were two and finlly three times a week in January, 1935.

houseman. The latter man is in charge of the Tumor ward and attends to the radium therapy as well as biopsies and the minor surgery, such as the removal of small lipomas, etc., which he does either in the clinic or in the surgical dispensary. He stays for a period of six months and then rotates through the other services of the surgical service. The other two men are gen-

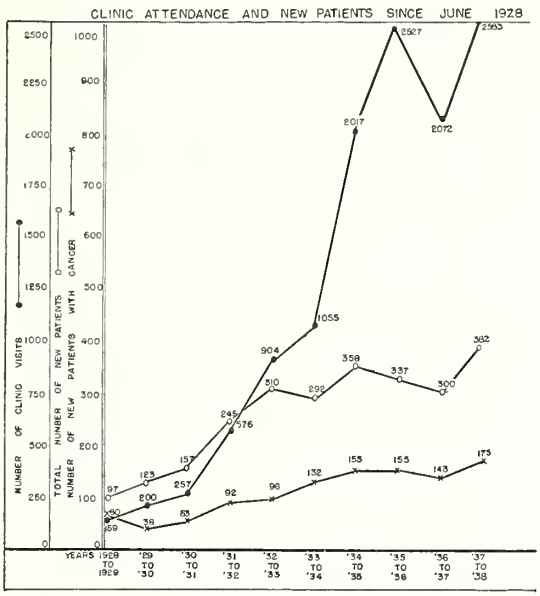


FIGURE 2.

erally attached for a year. Consultants from the various surgical specialties are available at all times.

Students of the third year class are assigned in sequence to the clinic during the school year. They are given a chance to take histories and have a limited chance to examine cases. Because of the danger of metastatic spread, examination by palpatation is perforce limited to one or two students per patient. But of course they can see cancer of certain localities, such as basal and squamous cell malignancies of the face, squamous cell carcinoma of the tongue or, via a speculum, cervical neoplasms. It is no exaggeration to say that in 9 to 12 sessions they observe more malignancies in individuals than a graduate of 10 years ago did in two or three years.

All patients who have lesions which can be photographed have their pictures taken at various stages of the disease and these are attached to the clinic sheet. Between December, 1932, and May, 1938, there were 935 photographs. Biopsies are taken and the sections are made available for study. In this way those students interested are given a chance to see what the patient's malignancy looks like under the microscope. It is our belief that upon viewing cancer occultly with the individual at hand and then microscopically, surgical pathology assumes a decidedly new meaning and becomes a much more personal and practical subject. The disadvantages are obvious. One is that the students are only given a smattering of cases, and that because of the heavy curriculum of the third year they are quickly moved on to other specialties. But at any rate it is a better method of education than showing a patient in an amphitheatre where the lesion can hardly ever be seen beyond the first two rows. So much for the student. But how about the patient?

Since the Tumor Clinic has been founded the follow-up results are infinitely better. For example, in a series of 1098 persons admitted to the Cincinnati General Hospital with diagnosed cancer between 1920 and 1929 the end results of but 789 were finally known. Of these 789, 317 had to be traced through the cumbersome method of going through the deaths of the city's Bureau of Vital Statistics page by page. Now it is the rare case that is not followed, perhaps 1 or 2 per cent. Most of these are transients and have left the city. The follow-up is a card appointment system and is given to the patient when he leaves. If the individual does not show up, "chasers" are sent out. Should these fail, the aid of the Visiting Nurses Association is then secured. This splendid service has also been of great value in attending the home-bedridden patient. They do daily dressings and are of tremendous value in maintaining the morale of dying individuals.

These cases that need hospitalization are admitted either to the Tumor Ward (which was opened October, 1937) or to the surgical wards

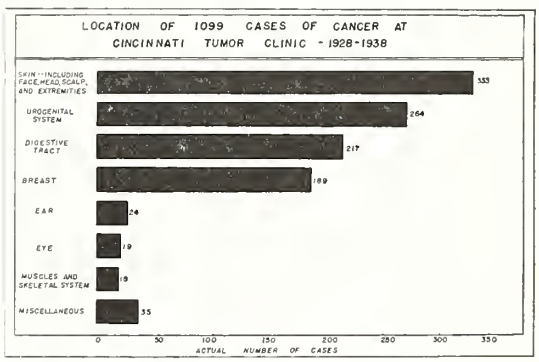


FIGURE 3.

of the hospital. Necessary operations are performed by the surgeons of the surgical staff. The irradiation under the supervision of the X-ray department and all individuals are carefully watched. Such patients frequently are admitted to the Tumor Ward when their condition is serious or when transportation facilities prevent them from coming to the X-ray department. In this way the comfort of the patient is greatly increased.

RADIUM THERAPY

In the first years of the clinic the only radium available was then graciously loaned through the courtesy of Doctors Ransohoff and Stark when it was not in use at the Jewish Hospital. Then in the spring of 1934 the Department of Surgery of the University of Cincinnati was given 200 milligrams of radium by an anonymous donor put up in needles of "linear intensity". This has been loaned through the department to the Tumor Clinic, where its use is directed by two members of the staff who, as has been said, are also in charge of the Clinic. Another 100 milligrams was secured in 1936.

X-RAY

X-ray therapy has certainly changed a lot in ten years and the General Hospital is no exception to this statement. Thirty or forty individual cases per annum would be a high number in 1928; now in the last year patients were treated for a total of 2,671 treatments. In 1937 the therapy machine was changed and a Kelly-Koett 220 KV with three tubes was installed. There is also a 400 KV machine in the private University Hospital, which is available for use for the charity patients of the Cincinnati General Hospital.

PART III

Gives the number of cases compared with the non-cancerous for the ten year period, also the number of visits. The last has increased tremendously. One reason for this was due to irradiation therapy where a close watch on the patient must always be maintained (Fig. 2).

TABLE I

Year	Clinic Visits	New Patients	Number new patients found to have cancer
June 1928-38	12,350	2,601	1,099
1928-29	159	97	60
1929-30	200	123	38
1930-31	257	157	53
1931-32	576	245	92
1932-33	904	310	96
1933-34	1,055	292	132
1934-35	2,017	358	155
1935-36	2,527	337	155
1936-37	2,072	300	143
1937-38	2,583	382	175

TABLE II

Location of Malignancy—New Tumor Clinic Cancer Cases—Cincinnati General Hospital June 1, 1928, to June 1, 1938

(See Figure 3)

INTEGUMENTARY SYSTEM			
Number of Cases			522
SKIN			333
Face and head		270	
Scalp		6	
Extremities		39	
Arm	5		
Hand	21		
Knee	2		
Thigh	2		
Leg	3		
Foot	6		
Trunk		16	
Back	5		
Hip	1		
Umbilicus	1		
Abdomen	5		
Inguinal	1		
Trunk (metast.)	1		
Multiple	2		
Perineum		2	
BREAST			189
MUSCULO-SKELETAL SYSTEM			
Number of Cases			18
Thigh	2		
Shoulder	3		
Chest wall	8		
Back	2		
Neck	2		
Finger	1		
RESPIRATORY SYSTEM			
Number of Cases			16
Larynx	8		
Antrum	4		
Bronchiogenic	3		
Pleura	1		
LYMPHATIC SYSTEM			
Number of Cases			15
Cervical lymph node	4		
Hodgkins	3		
Lymphosarcoma neck	3		
Primary site unknown	5		
DIGESTIVE SYSTEM			
Number of Cases			217
Mouth, lip, tongue	129		
Parotid	9		
Submaxillary	2		
Pharynx	3		
Tonsil	2		
Esophagus	4		
Jaw	7		
Stomach	14		
Small intestine	1		
Colon	4		
Caecum	4		
Sigmoid	3		
Rectum	24		
Anus	2		
Liver	1		
Bile duct	1		
Pancreas	2		
Pylorus	1		
Retroperitoneal	4		

ENDOCRINE SYSTEM

Thyroid	4

UROGENITAL SYSTEM

Number of Cases		264
Bladder		4
Kidney		1
Urethra		1
Male Genital		13
Penis	9	
Testes	1	
Scrotum	1	
Prostate	2	
Female Genital		245
Vulva		2
Labia		3
Generative tract		1
Pelvis		2
Vagina		4
Ovary		8
Uterus		26
Cervix		199

EYE

Number of Cases	19

EAR

Number of Cases	24
TOTAL CASES OF MALIGNANCY	1099

This table requires explanation. For a number of years the blood dyscrasias, such as Hodgkins and the leukaemias, and some of the malignancies of the gastro-intestinal tract which were not given roentgen therapy were not seen in the cancer clinic.

TABLE III

Sex and Color—Cancer Cases—Tumor Clinic of the Cincinnati General Hospital
June 1, 1928, to June 1, 1938

Location of Cancer	No. of Cases	Sex and Color: Male White	Male Colored	Female White	Female Colored
Face, scalp	276	187	2	86	1
Extremities	39	24	1	10	4
Trunk	16	6	2	8	—
Perineum	2	2	—	—	—
Breast	189	1	1	145	42
Musculo-Skeletal	18	8	4	4	2
Respiratory	16	13	—	2	1
Lymphatic	15	11	2	1	1
Digestive	217	154	19	34	10
Bladder	4	2	—	2	—
Kidney	1	—	—	—	1
Urethra	1	—	—	1	—
Male Genital	13	11	2	—	—
Female Genital	245	—	—	173	72
Thyroid	4	1	—	3	—
Eye	19	8	—	11	—
Ear	24	22	—	2	—
	1099	450	33	482	134

Analysis of the age distribution of the cases admitted shows that nearly 45 per cent are over 60 years of age. When one considers that the average mean survival of the human being at the present time is only 57 years it can be readily seen that our chances for five year cures in half of our cases at least are, to put it mildly, greatly impaired.

TABLE IV

Total number of cases—1099

Years	Cases
1- 9	2
10-19	7
20-29	22
30-39	113
40-49	219
50-59	244
60-69	283
70-79	172
80-89	36
90-99	1

TABLE V

Color and Sex

Total number of cases—1099

White	931	(—85%)
Colored	168	(+15%)
White	931	
Male	450	(49%)
Female	481	(51%)
Colored	168	
Male	33	(—20%)
Female	135	(+80%)

TABLE VI

Radium Therapy from April, 1934, to June, 1938

In that period 632 patients were treated for a total number of 3,808 treatments†

Date	Cases	Treatments
May 1, 1934-April 30, 1935	160	833
May 1, 1935-May 31, 1936	183	1519
June 1, 1936-May 31, 1937*	135	782
June 1, 1937-May 31, 1938*	154	674

The cases treated prior to acquisition of the present hospital radium were of necessity quite limited. The biggest year by far was 1933-34, when 42 individuals were given therapy for a total of 116 treatments.

†This is not entirely accurate as calculations were based on patient-years and several are, therefore, included who were treated one or two years apart.

* Figures compiled by Dr. Esther Marting.

TABLE VII

Cases of Survival Free Cancer Observed in the Tumor Clinic

Total over 3 years	59*
Total cases over 5 years	21
Total cases over 3 years (excluding the above)	38

No case has been included which has not had a biopsy definitely positive for a malignancy. In other words this group does not include any "presumptive" cures.

Breast cases	14
above 5 years	7*
above 3 years (exclusive of 5 year cures)	7
Cervix	11
above 5 years	4
above 3 years	7
Uterus	4
above 5 years	0
above 3 years	4
Skin	18
above 5 years	7
above 3 years	11
Mouth (sq. cell)	2
above 5 years	0
above 3 years	2
Lip (sq. cell)	2
above 5 years	2
above 3 years	0
Cecum	2
over 5 years	0
over 3 years	2
Submaxillary	1
above 3 years	1
Chondrosarcoma knee	1
above 3 years	1
Sarcoma back	1
over 5 years	1
Fibrosarcoma arm	1
over 5 years	1
Jaw	1
over 5 years	1
Tonsil	1
over 3 years	1

Space does not permit a detailed report of the rare cases that continually turn up in a clinic of this sort. We have seen and proved microscopically, for example, epiloia, metastases from the cervix to the patella, separate squamous cell cancers on the same patient, multiple basal celled malignancies (one case had nine such distinct centers), tuberculosis of the cervix uteri, and a 20 year recurrence of an operative breast cancer.

CONCLUSIONS

The ten year activities of a city charity clinic of the Cincinnati General Hospital are outlined.

1. Its connections with the Public Health Federation, the Medical School of the local University, the physical set-up with regard to personnel, radium, surgical and X-ray facilities are discussed.

2. A total of 1,099 patients with cancer were diagnosed and treated in the ten year period from June, 1928, to May, 1938.

3. It was determined that 45 per cent of the cases seen were over 60 years of age.

4. 1,502 other patients were seen who were thought to have cancer either by their physicians or themselves, but in whom no demonstrable malignancy was found.

5. Total clinic visits were 12,350. The range was from 159 the first year to 2,583 in the last year.

6. Twenty-three cases of proved cancer (biopsy) are recorded as being five or more years "cancer-free". Thirty-six other individuals treated three and four years ago are also to date "cancer-free" survivals as far as it can be determined.

*This includes 2 breast cases carried over from 1929. They were operated upon in 1923 and 1927.

Insecticides and Dermatitis

Experiments on animals with most of the insecticides show that they are toxic and irritating to the skin, and in sufficient concentration are capable of producing death. The petroleum distillate which is usually used as a solvent for the insecticide is also toxic and, if not specially treated, is irritating to the skin. In spite of this, insecticide sprays containing these toxic substances are usually sold to the public without any warning that their contents are injurious. They are usually sold in cans, the contents of which are to be poured into a spray gun furnished with the can. The directions on the can state that the insecticide is to be sprayed from the spray gun into the air of a closed room or on garments. The only hint as to the toxicity of the product is given by the statement usually found on the can that the sprays are harmless if used according to directions. The emphasis in such a statement is in direct contrast to the emphasis contained on poison labels of other poisons such as iodine, phenol, and the like, which are also harmless if used according to directions. The statement that the insecticides are harmless tends to make customers careless in their use. The directions on the cans should be worded in such a manner as to impress on the consumer the fact that the contents are toxic and irritating to the skin unless they are used according to directions. This would place the emphasis on their toxicity and tend to make people more careful in using them. Indeed, placing poison labels on all insecticides would better safeguard not only the health of the consumer but also the financial interests of the manufacturer by helping to protect him against law suits. The directions for use should state that in spraying these substances protective clothing should be worn, the face and other portions of the skin should be exposed as little as possible to their action, and that the containers should be kept away from articles of food and out of the reach of children.—U. S. Public Health Reports, Vol. 54, No. 31, Aug. 4, 1939.

Diagnosis, Prognosis and Treatment of Hodgkin's Disease

CHARLES S. HIGLEY, M.D. and HARRY HAUSER, M.D.

IN 1832, Hodgkin described several patients with enlargement of the lymph nodes and spleen. Trousseau, in 1856, was the first to recognize this as a disease entity, but it was not until the work of Sternberg, in 1898, that the histo-pathologic background was established. Since then, it has been realized that Hodgkin's disease is one of a group of related diseases known as the lymphoblastomas, which have in common an obscure etiology, a primary involvement of the lymphoid system, similar clinical characteristics and a poor prognosis.

Anatomically, involvement of the lymph nodes is the dominant feature of Hodgkin's disease. The nodes may be either soft and elastic, as in the ones showing cellular infiltration, or small and hard as in those showing fibrosis. Between these are numerous intermediary stages depending on whether the case is early or late, and whether radiotherapy has been used or not. Regression of nodes following radiotherapy is the result of destruction of cellular elements and replacement by fibrous tissue. Any given case may show a different microscopic picture in different lymph nodes chosen for biopsy. Not only the lymphoid tissue but all tissues and organs may be involved. Most common are the spleen, bone marrow, lungs, pleura, liver, muscles, skin, central nervous system and digestive tract.

ETIOLOGY

Since this disease was first described, it has been interesting to the physician because of its unique position in relation to other diseases. Not definitely an infection or a neoplasm yet with some of the features of each, its true etiology is yet to be established. Briefly listed are a few of the points which are given by proponents of each theory.

The infectious theory is favored by Krumbhaar[12], who believes Hodgkin's may be a virus disease. It is pointed out that the histological picture in the early stage is often more typical of an inflammatory than a neoplastic process. The fever and eosinophilia often found in Hodgkin's are typical of a parasitic disease.

Gordon[7] has recently published an article claiming to have found minute spherical organisms in material from lymph nodes of affected patients which he calls "elementary bodies". His work seems poorly controlled to us and has not yet been corroborated. Parsons and Poston at Duke University have recently reported the finding of an unusually high incidence of positive Brucella cultures in typical Hodgkin's lymph nodes. This work may be significant in our opinion.

The neoplastic theory, which was favored by Warthin[22], has in its favor that relatively few mild cases exist, and no cures have been observed nor has any immunity been produced. There is no proved etiological agent and it is not transmissible. There is a metastatic spread to all organs, and true infiltration can be demonstrated microscopically. Karsner[10] has suggested that it may be a chronic granulomatous inflammatory process which has undergone transformation with assumption of malignant characteristics.

DIAGNOSIS

The diagnosis of Hodgkin's disease depends on a correlation of clinical and laboratory findings. Neither is sufficient unto itself. The main clinical points are as follows:

It is more common in males than in females. There were 60 males to 25 females in our series. The colored have as high an incidence as the white when their relative population is considered. The greatest incidence is in the third decade with a secondary peak in the fifth decade. Our youngest case was four and the oldest eighty years. The disease is characterized by discreet, progressive, painless enlargement of the lymph nodes. The left cervical nodes are most commonly the first observed. Next in order are the axillary, inguinal and occipital. There is

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The Authors

● Dr. Higley, Cleveland, Ohio, is a graduate of the University of Michigan Medical School, 1930; fellow American College of Physicians; visitant, department of medicine, Cleveland City and St. Luke's Hospitals; clinical instructor in medicine, Western Reserve University School of Medicine.

● Dr. Hauser, Cleveland, Ohio, is a graduate of University of Texas Medical School, 1929; member Radiological Society of North America; American Radium Society; diplomate of the American Board of Radiology; roentgenologist to Cleveland City Hospital; consulting roentgenologist to Grace Hospital; assistant professor of roentgenology, Western Reserve University School of Medicine.

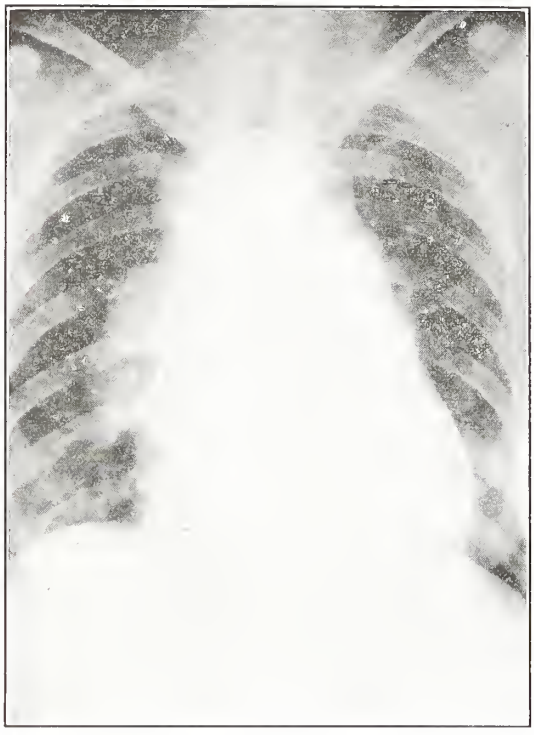


Fig. 1. Roentgenogram of chest, April 24, 1935, showing enlarged hilum and paratracheal lymph nodes before radiation therapy.

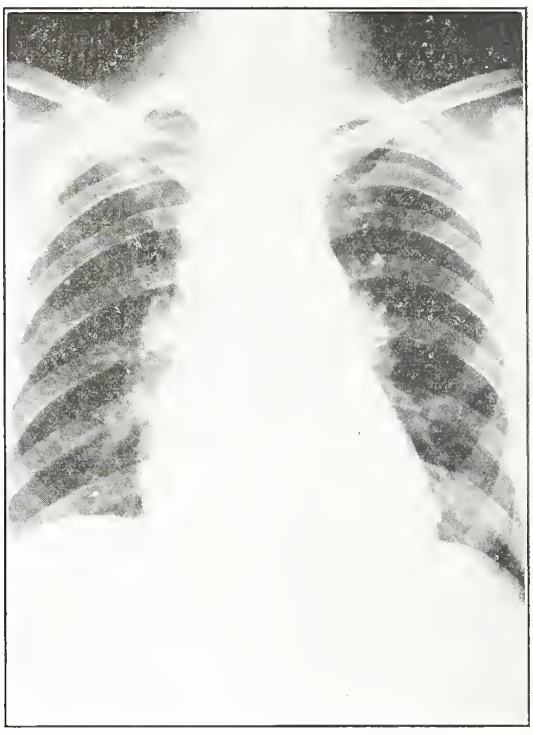


Fig. 2. Re-examination of chest, May 13, 1935, following high-voltage roentgen therapy to anterior and posterior mediastinal fields (200 r x 3 to each) showing almost complete disappearance of enlarged lymph nodes.

progressive weakness, emaciation and anemia. There is otherwise unexplained fever, often of the relapsing type with alternately afebrile and febrile periods.

In the early stage the mediastinum is commonly involved. This is often asymptomatic and may be discovered by a chest roentgenogram. Later in the disease, attention may be brought to mediastinal involvement by symptoms caused by pressure on adjacent organs such as the oesophagus, trachea, bronchi or recurrent laryngeal nerves. The typical roentgen shadow is usually a non-pulsating, clear cut, rounded or semi-oval tumor which may be unilateral or bilateral. Enlargement of the abdominal nodes is usually late and may be accompanied by ascites.

LABORATORY FINDINGS

Microscopic examination of stained tissue from a lymph node biopsy is necessary for an accurate diagnosis. Our series included only biopsied or autopsied cases, for we found that other members of the lymphoblastoma family or tuberculosis can accurately mimic the clinical picture of Hodgkin's disease. The blood picture is not typical[19]. The usual finding is a secondary anemia with a mild polymorphonuclear leucocytosis (7,000-15,000) and often an eosinophilia. A positive diagnosis can never be made from the blood picture alone. In certain cases in which biopsy is not feasible, such as in mediastinal involvemement without peripheral adenopathy, a presumptive diagnosis of Hodgkin's disease or lymphoblastoma may be made in the face of a good response to radiotherapy (Figs. 1 and 2). The Gordon test, proposed by Gordon in 1932[8], is a biological test which recently has been shown by some observers to be nonspecific for Hodgkin's disease[4,21].

PROGNOSIS

After the disease presents sufficient symptoms to call attention to the diagnosis, the prognosis depends on the quality of treatment and the natural course of the disease. Great differences in duration of life are due chiefly to the presence of a benign or a malignant type of disease, for we recognize that it may manifest itself as an acute fulminating process, or as a slowly evoluting process. In our series of 85 proved cases, while the majority died in the first two years of the disease, 15 per cent of them lived longer than three years. (Fig. 3). There is definite evidence that the average duration of life is longer since the advent of modern radiotherapy[6,11,9,14,16]. Craver[1] reported 10 per cent five-year survivals in a series of 310 cases, with one survival of 13½ years. Warthin[22] has reported a 12-year survival and Minot and Isaacs[15] a 17-year survival. Our longest survival has been under our observation for 10 years.

GENERAL THERAPY

During the period of activity of the disease, as evidenced by fever, these patients should be treated similarly to those having any severe infection, with bed rest and attention to general hygienic measures. They should be given a high caloric, high vitamin diet. We have used a preparation of cod-liver oil and malt in a dose of four drams daily. Arsenic, given as Fowler's solution, is a classical item in medical therapy. We have not used it because on the basis of the experience of others we believe its value to be minimal. A preparation of iron and liver extract (Lextron) is given three times daily for anemia. Blood transfusions are given for a red blood count of below one million. The pruritis, which most authors describe, but which we found to be rare, usually responds to irradiation of the abdominal nodes[2]. Every case should have a monthly check-up for recurrence of lymph node involvement. And lastly, the patient and physician should strive to maintain an optimistic and hopeful attitude, for pessimism leads to inadequate interest and therapy. The prognosis in Hodgkin's disease is better than in other malignant lymphoblastomas, and is improving yearly. We have no way of prophesying the exact clinical course of each case, and it is unfair to doom a patient early, when with good therapy a five-year survival may be expected in a fair percentage of cases.

RADIATION THERAPY

Roentgen rays have been used in the treatment of Hodgkin's disease since Pusey[17] first treated two patients with success in 1901. In the following year Senn[19] irradiated two patients with multiple exposures producing a blistering reaction of the skin and causing the involved enlarged nodes to disappear. In 1904, LeFevre and Brown[13] published a report on the Treatment of Hodgkin's Disease by Means of an X-ray Bath. They administered ten-minute exposures to many parts of the body on the same day and within a short period of time noticed a disappearance of the swollen nodes as well as general improvement in symptoms. Finch[5] had similar experience in the same year. As experience was gained by early workers with this method, the application of roentgen rays as a therapeutic agent in Hodgkin's disease became an established procedure. Techniques varied considerably, from the use of multiple small exposures to single large doses with apparatus of different voltages. From this chaos of clinical experimentation, evolved certain ideas concerning techniques of application and dosage about which the majority of radiotherapists are today in more or less agreement.

Experience has shown that radiation therapy combined with other medical measures offers the best chance for the alleviation of distressing symptoms of Hodgkin's disease and prolongation of life with the least inconvenience to the patient. Roentgen treatments, in doses usually employed by competent radio therapists, are harmless and painless. Occasionally, radiation sickness may develop and cause the patient temporary discomfort. In most instances, however, after the first series, general health is restored to a degree which enables the patient to return to his occupation. In later stages of the disease, dramatic response from irradiation, is not the rule.

TECHNIQUE OF IRRADIATION

The biologic effects of radium and roentgen rays show no essential clinical differences. Due to great advancements in the construction of

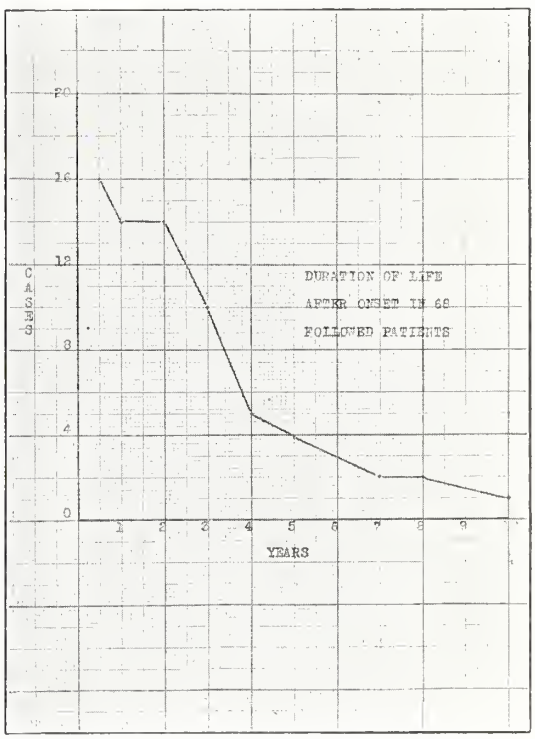


Fig. 3. Graph indicating prognosis in Hodgkin's disease from the date of first symptoms.

roentgen ray apparatus in the past few years, and because of the ready accessibility to this modality, roentgen rays are preferred to radium in modern therapy. Before the advent of high voltage apparatus (200 kilovolts), lower voltage techniques were employed with success. Today, higher voltages with greater filtrations are preferred in all lesions situated beneath the skin surface because of better dosage to the depths, fewer instances of late skin damage and shorter time factor for individual exposures.

No single formula will suffice in the treatment of patients afflicted with Hodgkin's disease by radiation methods. Each patient presents an

individual problem and the treatment should be adapted to suit the case. In general, it has been our experience as well as that of others Dejardins[3], Gilbert[6], and Jaycox, Pierce and Hildreth[9] that the administration of relatively small doses of roentgen rays to the entire lymphatic system at proper intervals to patients under close clinical surveillance has shown better results in freedom from symptoms and prolongation of life. It is of great importance that irradiation be given not only when obvious symptoms are present, but also when serious symptoms are expected by the attending physician.

After the diagnosis of Hodgkin's disease is established, the treatments are first directed towards the clinically involved superficial lymph

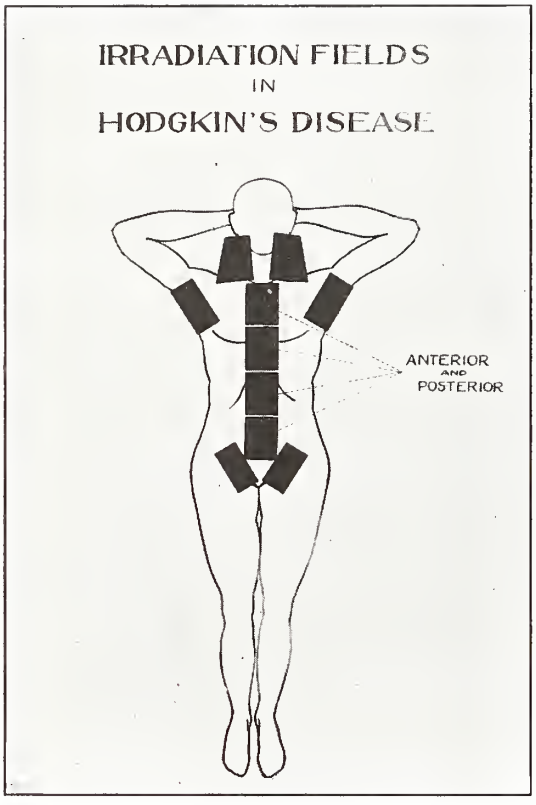


Fig. 4. Schema of body areas utilized in irradiating Hodgkin's disease.

nodes. Three doses of 200 roentgens each (1/3 of a skin erythema dose) are given to the diseased nodes in a period of a week or ten days. If more than one superficial area is involved, one treatment may be given daily, or in some instances in order to save time, two lesions are treated on the same day. Immediately following the completion of this treatment, the midline of the trunk is divided in four vertical fields anteriorly and posteriorly and a dose of 200 r. is given to one portal every day until all areas are treated. (Fig. 4).

If the constitutional reaction to irradiation is severe, the treatment interval may be extended to every other day. This cycle is repeated immediately if the general condition of the patient does not contraindicate further therapy. Since Hodgkin's disease is a systemic rather than a local affection of the lymphatic system, these fields are selected in order to irradiate the mediastinal and abdominal lymph node chains whether or not clinical examination discloses involvement. The total dosage of two cycles is more adequate than a single series in controlling existing disease. If good regression is not obtained in clinically demonstrable diseased areas, the dosage is increased to a total of six treatments (200 r x 6) directed toward the diseased lymph nodes. The size of the skin portals employed in irradiating the abdomen and mediastinum ranges from 12 x 10 to 15 x 12 cm. in patients of average size. In 46 irradiated patients in our series, the smallest number of treatments was 3, the largest 83, and the average number 26.

The physical factors employed in the treatment of our patients are 200 kilovolts, 20 milliamperes, 0.75 mm. Cu and 2.0 mm. Al filtration, 50 cm. target-skin distance on all portals except on the anterior trunk where 70 cm. T-S distance is used in order to obtain a greater percentage depth dosage. The dosage in roentgens (international r-unit) is measured in air, i.e., measurement of r out-put of the central beam of the rays without taking into consideration the back-scattering effect of the tissues. Doses in 200 to 300 r fractions are large enough to produce the desired effect on the diseased tissues, small enough to obviate the unpleasant radiation sickness encountered with the use of larger doses, of such quantity that the skin reaction is hardly noticeable and allow latitude for several repetitions of treatments if and when needed.

In debilitated patients, if response to irradiation is not prompt, further irradiation is abandoned since the lesions do not regress and the patient's symptoms are made worse.

Repetition of treatment is indicated when recurrence of disease is demonstrable or when symptoms point to development of new foci of infiltration. Pruritis or elevation of temperature may be a manifestation of recurrent disease in abdominal lymph nodes. Irradiation of these areas will frequently alleviate symptoms and return the patient to his normal state. Involvement of parenchymatous organs or bones require, as a general rule, a greater total dose of irradiation to be controlled than do diseased lymphatic structures.

Finally, close cooperation between patient, clinician and roentgenologist is of paramount importance if proper treatment is to be administered and best results be obtained.

SUMMARY

Hodgkin's disease is a disorder of the lymphatic system of obscure etiology. The diagnosis depends on a correlation of clinical and laboratory findings. Biopsy is necessary for irrefutable diagnosis. Adequate treatment consists of general medical measures and roentgen therapy. The technique of using multiple fractional doses of irradiation is the method of choice in obtaining lymph node regression, alleviation of distressing symptoms and prolongation of life.

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Sulfanilamide and Sylfapyridin in the Treatment of Various Infections

TOXIC MANIFESTATIONS

Clinical Features	Time of Appearance	Treatment	Results
Cyanosis	First or second twenty-four hours	Methylene blue, gr. i, t. i. d. Stop drug if there is anorexia or vomiting	Recovery is prompt following methylene blue or discontinuance of drug
Nausea Vomiting Giddiness Weakness	First twenty-four hours or later	None; it is usually not severe enough to discontinue the drug	
Acidosis	First twenty-four to forty-eight hours	Sodium bicarbonate daily	Recovery
Convulsions Central nervous system intoxication	Following intravenous injection of drug	The drug should not be used intravenously	Death
Anemia, acute hemolytic.	Three to seven days	Stop drug Force fluids Blood transfusions	Recovery Recurrence of anemia is common if drug is resumed
Slowly progressive anemia	Seven to twenty-one days	**Stop drug** **Force fluids** **Blood transfusions** Iron	Recovery
Agranulocytosis	Seven to fourteen days or later	Stop drug Pentnucleotid Blood transfusions	Death in most cases within one to five days after onset
Fever	Seven to nine days; usually continues two to six days; varies from 101° to 106°; often associated with skin eruption	Discontinue drug Force fluids	Complete recovery May recur when drug is started again
Skin rash, pleomorphic	Seven to nine days; usually accompanied by fever	Discontinue drug Force fluids	Complete recovery
Jaundice	Associated with hemolytic anemia, exfoliative dermatitis Associated with liver damage	Discontinue drug Force fluids High carbohydrate intake	Recovery or death
Splenomegaly	Associated with jaundice or liver damage or acute or chronic anemia		Disappears in three to six weeks
Renal insufficiency	Associated with hepatic insufficiency	Stop drug Carbohydrate diet Maintain fluid balance	Recovery or death
Hemoglobinuria	Associated with acute hemolytic anemia	Same as treatment for anemia	Recovery
Optic neuritis	Rare	Discontinue drug	Recovery
Peripheral neuritis	Rare	Discontinue drug	Recovery

—Chester S. Keefer, M.D., Boston, Mass.; Cal. and W. Med. Vol. 51, No. 2, Aug., 1939.

Mid-Line Cerebellar Tumors

HARRY E. LeFEVER, M.D.

WITHIN the confines of the posterior fossa, the cerebellum, pons and medulla oblongata are housed, separated from the cerebral hemispheres and midbrain by a partition of dura called the tentorium cerebelli.

By means of a small opening in this dural reduplication called the incisura, a connection is maintained between the contents of the posterior fossa and those structures lying above the tentorium.

The largest structure within the posterior fossa is the cerebellum. Anatomically it is divided into a medial portion, the vermis, and two lateral lobes, or cerebellar hemispheres. These subdivisions must be regarded as somewhat arbitrary since the medial and lateral portions of the cerebellum do not differ essentially in structure and there are no sharp lines of demarcation between them. The vermis forms a median ridge on the surface of the cerebellum superiorly, but is not sharply marked off from the hemispheres laterally. This portion is called the superior vermis. The inferior portion of the vermis lies in a deep groove, the vallecula cerebelli, between the cerebellar hemispheres. This portion is called the inferior vermis and is the surface which presents itself upon operative exposure. It is marked off from the hemisphere on either side by a well defined furrow, the sulcus valleculae.

The vermis is divided into lobules by a series of deep transverse fissures. The superior vermis includes (1) the lingula, a slender lobule lying adjacent to the anterior medullary velum, (2) the central lobule, (3) the monticulus which comprises the culmen and declive and (4) the folium vermis, which is the most posterior portion of the superior vermis. The inferior vermis includes (1) the tuber vermis, (2) the pyramis, (3) the uvula and (4) nodules, although separated superficially from the hemisphere on either side of the sulcus velleculae, the lobules of the inferior vermis, like those of the superior are continuous with the adjacent portions of the cerebellar hemisphere.

It may be briefly stated that the cerebellum has been added to the neuraxis as a suprasegmental structure in the interest of coordination.

The fundamental function of the cerebellum is synergy, i. e., the faculty with which complex movements are performed smoothly and synchronously.

Studies in comparative anatomy has led to the distinguishing of three fundamental parts of the cerebellum: (1) the very old vestibular or archicerebellar portion, (2) a less old spinal or paleocerebellar portion and (3) a still newer, the hemispheres or neo-cerebellum. Because of phylogenetic and anatomic evidence it is definitely known that the vermis is the spinal or paleocerebellar portion of the little brain. Two important afferent pathways from the spinal cord pass upward to the vermis. The dorsal spinocerebellar tract of the Flechsig arises from the nucleus dorsalis of Clark and passes upward on the same side of the cord in the lateral funiculus to go via the inferior cerebellar peduncle to the homolateral cortex of the vermis, terminating in the lobus centralis, culmen and pyramis. The ventral spinocerebellar tract of Gowers arises in the posterior and intermediate horn cells of the gray matter of the same and opposite sides of the cord. Its fibers pass to the ventral part of the lateral funiculus and then upward to the level of the fifth nerve where they turn abruptly backward to go via the brachium conjunctivum to the cortex of the lobus centralis and culmen of the vermis.

The results of experimentation upon both birds and cats indicate that the spinal parts of the cerebellum are concerned in a mediative capacity with proprioceptive automatic standing and walking. Evidence points also that this is true in humans. In a monster with acrania and with marked signs of decerebrate rigidity, we have personally stimulated electrically the vermis and observed an instantaneous, striking decrease of the rigidity in the lower extremities. A curious familial malady known as primary paliocerebellar atrophy illustrates most vividly the difficulty produced by a vermis lesion. The outstanding defect is one of equilibrium. The patient can stand only by widening greatly his

The Author

Dr. LeFever, Columbus, Ohio, is a graduate of Jefferson Medical College, 1925; fellow American College of Surgeons; member Central Neuropsychiatric Association; member of staff, University, White Cross, Children's and St. Francis Hospitals; instructor in surgery, Ohio State University College of Medicine.

Read before the Section on Nervous and Mental Diseases, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

base and constantly oscillates forward and backward. The gait is unsteady and reeling. The upper extremities are affected slightly, if at all, and nystagmus is absent. It is found pathologically, that the lesion is almost wholly confined to the vermis.

We, therefore, conclude that the spinal portion of the cerebellum is concerned primarily in maintaining the erect posture and can predict that a tumor which develops in the vermis of the cerebellum will affect principally and equally the lower extremities and cause a predominant difficulty in maintaining the erect posture and in walking.

AGE INCIDENCE

Since 1932 we have encountered 21 tumors occupying a vermis position. The youngest age was 2½, the oldest 32. It is interesting to note that only three patients in this series were over 21 years of age.

COURSE

To a great extent the rapidity of the onset of symptoms is dependent upon the degree of malignancy. Due to the position of the mass, immediately above the fourth ventricle, the normal circulation of the cerebrospinal fluid is early interfered with, thus producing an internal hydrocephalus. Therefore, the signs and symptoms which are produced may conveniently be divided into general and local.

(1) General: Head pain is almost invariably present but is rarely severe, undoubtedly due to the young age of the patients, which allows them to decompress themselves by separation of the cranial sutures, thus compensating for the increasing hydrocephalus.

Vomiting was complained of by each patient. It was usually abrupt, occurring both with and without nausea. The type which was usually referred to as projectile occurred in the early morning upon arising.

Failing vision which was dependent upon choked discs was noted in seven cases, although 19 were found to have choked discs. Diplopia due to external rectus palsy was present in nine. The right side was involved in six cases and the left in three. Evidence of separation of the cranial sutures by X-ray examination was present in ten instances and Macewen's sign was thought to be present in 13.

(2) Local: By all odds, the outstanding sign indicating the local site of the tumor was a pronounced difficulty in walking. The feet were spread widely apart and a more or less constant swaying was noted. It is frequently stated that with a vermis lesion there is a predominant tendency to fall either forward or backward. Careful observation in this small series failed to note this and it was concluded that no consistent pattern was present. Upon attempting to walk the patient reeled drunkenly and the unsteadiness was not increased notably by closing the eyes. The marked difficulty in standing or walking was in striking contrast with the slight evidence of ataxia of the extremities when the patient was lying in bed. The lower extremities were always involved to a greater extent than the upper, although even the lower extremities may show surprisingly few signs by the ordinary tests, incoordination, dysmetria, decomposition of movements and tremors being the most frequent signs.

Hypotonia of the extremities may be observed early, with decrease of reflexes; however, as the pressure continues the reflexes may become hyperactive with extensor responses.

Vertigo was complained of by 12 patients. Nystagmus was present in 16 but only elicited by having the patients turn the eyes to the extreme right or left. This sign is probably not present in the early stages of the tumor formation.

Hughlings Jackson described a peculiar type of cerebellar fit which may occur in the later stages; this, however, was not seen in these patients.

PATHOLOGY

Of the 21 cases in this review, 10 proved to be astrocytomas, seven medulloblastomas, two ependymomas and two hemangioblastomas.

Cystic formation was present in all but two of the astrocytomas encountered. No attempt was made to subdivide them into the fibrillary or protoplasmic type. These tumors offer a much better prognosis than the more undifferentiated varieties.

The peculiar, deeply reddish color of the medulloblastoma serves as an aid to recognize it grossly. The frozen section has been of great value in differentiating these extremely malignant lesions from those of a more benign nature. The medulloblastomas together with the papillomas share the doubtful distinction of being the two cranial growths which may be implanted elsewhere in the subarachnoid spaces, the cells being probably disseminated by the cerebrospinal fluid. Of all the glial tumors this type is the most radiosensitive. The usual period of survival after removal of these tumors is from nine months to three years. However, a medulloblastoma was removed from one patient in 1935 and to date there is still no evidence of recurrence.

The ependymomas arise from the wall of the fourth ventricle. As a rule they grow slowly and lend themselves to surgical removal.

Both of the hemangioblastomas were diagnosed preoperatively by finding the hemangiomas of the retina. The prognosis in this type is likewise favorable.

SURGERY

Six operative deaths occurred in the 21 cases or an operative mortality of 28.5 per cent. The

prone position was used in each case. The incision employed in each instance was one starting below the mastoid process on each side and curved upward to just below the occipital protuberance. The ventricles were routinely tapped in order to afford more room. Indigo cormine injected into the lateral ventricle was used to prove that the aqueduct of Sylvius was patent. All medulloblastomas were followed postoperatively by intensive deep X-ray therapy.

CONCLUSION

(1) The vermis of the cerebellum is especally liable to harbour a tumor in childhood and young adults. (2) Due to its position over the fourth ventricle with early obstruction to the out-flow of spinal fluid marked signs of intracranial hypertension may develop. (3) The signs produced indicating the local involvement were disturbances of standing and walking. (4) The cell types encountered in this tumor series were astrocytes, medulloblastomas, ependymomas and hemangioblastomas.

9 Buttles Ave.

The Cure of Gonorrhea: An Immunologic Problem

The efficacy of sulfanilamide in gonorrhea apparently depends upon (1) the proper concentration (above 1-100,000) of the free form (para-amino-benzene-sulfonamid) in the body fluids, and (2) its continuous maintenance for lengthy periods so as to completely disarm the gonococcus and thus prevent tissue damage. For without tissue damage the parasite's nutritional demands cannot be satisfied, and hence the life cycle is interrupted. Clinical fulfillment of the above postulates is arduous because the metabolic endpoint for sulfanilamide varies preponderantly with the individual—an admixture of the free form, which is useful, and the acetyl form, which is both inert therapeutically and somatically toxic in quantities—and because of the rapid elimination rate for the drug (three-to four-hour interval). Haphazard administration of sulfanilamide is, therefore, under the circumstances, not only fatuous but positively dangerous, since any drug (and particularly with the benzene ring) operating in that narrow and shadowy zone between the living protoplasm of the body cells and the living bacterial protoplasm (with supposedly low toxicity for the former, but selective affinity for the latter or its vital process) is liable to vitiation, specific deviation or even reverse application under modified or unusual physiologic conditions. Hence, vigilance anent sulfanilamide is necessary, pending more comprehensive pharmacological knowledge.—Edward W. Beach, M.D., Sacramento; Cal. and W. Med., Vol. 51, No. 2, Aug., 1939.

Affinity of Lead for Vitamin C

Clinical and laboratory evidence that there is an elective affinity between lead ions and ascorbic acid in the human body, is currently reported by Doctor Holmes and his colleagues of Oberlin College. Such chemical affinity would not only suggest a new theory as to the toxic action of metallic lead, but would make plausible new methods of therapeutic attack. A possible clinical connection between lead and vitamin C was suggested to the Ohio biochemists by the similarity of the gum lesions in scurvy and severe lead poisoning. A group of 34 cases of industrial lead poisoning was, therefore, selected for study. Seventeen members of this group were given 100 milligrams ascorbic acid daily, but no other medication. There was a marked gain in subjective symptoms in all members of this group, a prompt improvement in blood picture, and decreased excretion of lead in the urine. In one typical case, for example, urinary lead, before beginning ascorbic acid administration, was 0.5 milligram per liter. Within two weeks, excretion fell to 0.1 mg. per liter, approximately that of normal urinary excretion. With the 17 other members of this group the previous calcium gluconate treatment was continued, but was supplemented by 100 milligrams ascorbic acid daily. This group gained in health, but not so rapidly as the 17 patients given vitamin C alone. Test-tube experiments led to the conclusion that ascorbic acid reacts with lead ions to form a poorly ionized and, therefore, relatively inert lead-ascorbic acid conjugate. Chemical analyses suggest that this relatively inert lead-ascorbate is excreted in the bile. The obvious conclusion drawn by the Ohio biochemists is that "men exposed to lead hazard should be advised to include in their diet plenty of such rich sources of vitamin C, as tomatoes (fresh or canned), raw cabbage, oranges or grapefruit, raw turnips, green peppers, cantaloupe, etc"; or to take 50 milligrams of ascorbic acid daily in addition to their usual diet. Detailed publication of their clinical evidence is promised for the near future.—W. H. Manwaring, M.D., Stanford Univ.; Cal. and W. Med., Vol. 51, No. 2, Aug., 1939.

The mental attitude of tuberculosis patients is not one of optimism. In observing approximately 2,000 patients with tuberculosis, of whom 75 were closely studied, the prevailing moods were found to be depression, fatalism, anxiety and apprehension. It is recommended that extreme care be used in advising patients of the extent and nature of their disease and suggested that more attention be paid to the psychological care of those in tuberculosis hospitals.—Strecker, E. A., Braceland, F. J. and Gordon, B., Mental Hygiene, October, 1938.

The Muscle Balance In Routine Refractions

F. BRUCE FRALICK, M.D.

THE determination of the extra-ocular muscle balance in routine refractions is very commonly omitted, only to be investigated should the patient return complaining of dissatisfaction with the prescription. The 25 per cent or less of patients who consult the oculist for glasses should be entitled to a complete ocular examination upon their first visit and necessary steps taken at that time to correct all abnormalities found.

Routine testing of the extra-ocular muscle balance in all patients giving a history of asthenopia will occasionally uncover a very interesting muscle problem which will tax the ingenuity of the best refractionist. More often than not, many of these patients will give the history of having seen several oculists and optometrists without relief. Examination often reveals that a satisfactory refraction has usually been done but apparently the muscle balance had not been taken into account.

One might ask just what constitutes a satisfactory test of the extra-ocular muscle balance. A satisfactory muscle test is one which considers the extra-ocular movements in all six quadrants, the convergence near point, the phorias for distance and near (in the reading position), and the ductions where indicated. In all considerations of the extra-ocular muscle balance it is absolutely essential to have certain accessory data such as the near point of accommodation, the refraction findings, and in certain cases, the degree and amplitude of fusion. The accumulation of all this data at first seems to be too time consuming, but after routine is established, very little actual time is needed in gathering all pertinent information on each patient refracted.

The degree of phoria found which will need treatment varies between wide limits requiring that we be guided largely by the comfort of the patient. This is especially true of the exophorias. The muscle balance is usually considered to be within normal limits if we find from 0-1$^{\Delta}$ of hyperphoria for distance and near, 3$^{\Delta}$ esophoria to 2$^{\Delta}$ of exophoria for distance, 1$^{\Delta}$ of esophoria to 8$^{\Delta}$ of exophoria in accommodation, a PcB of 85 m.m., and an abduction of 4-8$^{\Delta}$. Adduction should be three to four times the amount of abduction and should be over 15$^{\Delta}$. Adduction or prism convergence is a difficult test and of doubtful value. Duane says, "Prism convergence (adduction) can easily be run up to 30$^{\Delta}$. In the first trials the results vary greatly and the variations are not due to any real variation in muscular power. Hence the test is of significance only when on repeated trials the patient cannot be made to overcome more than 6-8$^{\Delta}$, and even that small degree of convergence is made with effort and maintained with difficulty".

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From the Dept. of Ophtholmology, University of Michigan, Ann Arbor, Mich.

The Author

● Dr. Fralick, Ann Arbor, Michigan, is a graduate of the University of Michigan, School of Medicine, 1927; member American Academy of Ophthalmology; American Association for Research in Ophthalmology; chairman of the department of ophthalmology, University Hospital; member of staff, St. Joseph Mercy Hospital, Ann Arbor, Michigan; professor of ophthalmology, University of Michigan School of Medicine.

HETEROPHORIAS AND HETEROTROPIAS

When the two eyes work together properly, they are said to be in balance or in a condition of orthophoria. Any muscle disturbance outside of the normal limits is an imbalance. The imbalances are divided into heterophorias or latent imbalances and heterotropias or manifest imbalances. This discussion will be limited to the heterophorias as uncovered during routine refractions. In a latent imbalance the eyes do not deviate because the desire for single binocular vision keeps them straight. The excessive muscular effort needed to keep them straight is the cause of the symptoms of which the patient complains. In severe cases the patient may in time give up the effort to keep the eyes straight and an actual squint develops. The symptoms caused by the phoria and of which the patient complains are headache, drowsiness, pain in the eyes, poor vision, general fatigue, etc.

There are four varieties of phorias, i. e. hyperphoria, exophoria, esophoria, and cyclophoria. In an examination to detect the presence of a phoria we may use the cover or screen prism test, the phorometer, or prisms from the trial case and a Maddox rod. The tests should be made with the eyes focused for both distance and near.

Cyclophoria is a condition in which one or both eyes show a tendency toward tortion or a wheel-like displacement and is easily tested and measured with two Maddox rods, one red and

one white, on the phorometer. It is often found in patients with an oblique astigmatism although it is then a pseudocyclophoria as it clears up with refraction which corrects the astigmatism. For this reason the muscle balance should be taken when the patient is wearing his correction. Pseudocyclophoria is also found when the patient is wearing an incorrectly placed cylinder and this explains the severe symptoms of which they sometimes complain. Some cases showing a small amount of hyperphoria also show a pseudocyclophoria which is corrected when the hyperphoria is carefully corrected. True cyclophoria or the intrinsic form is due to anatomical or innervational disturbances and is not well understood. Various cylinder exercises have been devised but careful refraction and correction of the hyperphorias are the only practical forms of treatment of a cyclophoria at the present time.

THE HYPERPHORIAS

The hyperphorias are usually on a paretic basis and only a few are truly spastic in nature. There is usually overaction or spasm of the associated muscle on the opposite side from the paretic muscle, thus increasing the degree of hyperphoria. When the paresis has existed for only a short time, the hyperphoria is present only in the field of action of the paretic muscle. As time goes on the hyperphoria shows up in all fields of action of the extraocular muscles due to the spasm of the associated muscle on the opposite side and the secondary contraction of the antagonists on the same side. Usually a hyperphoria is more or less constant in any given case but considerable variations may be shown in some neurotic individuals.

Hyperphoria at the reading distance should be looked for and is often different from that which is found for distance. The reason for this difference is that a different set of muscles are brought in action. For distance in the primary position the chief elevators and depressors are the superior and inferior recti but when the eyes are converged for near in the normal reading position the obliques are brought more and more into play. Most of the phorometers in use today are set up so that when one takes the phorias for near the target is placed 33 cm. from the patient in a horizontal position rather than in the normal reading position below the level of the eyes. Since most hyperphorias are paralytic in type, the amount of hyperphoria will increase as the eyes are moved toward and into the field of action of the paretic muscle. The presence of an underaction in an elevator or depressor muscle will also produce deficiencies in the adduction and abduction power of these muscles in the different fields of gaze, in that the elevators and depressors are either adductors or abductors as well. By a consideration of these physiological points in ocular motility, we more fully appreciate the necessity for taking the phorias for near in the normal reading position below the level of the eyes rather than in a horizontal position as commonly practiced.

TREATMENT

Treatment of hyperphoria consists in careful refraction and if the phoria is not over 6$^{\Delta}$D. the use of vertical prisms for wear. As far as possible the prisms should be distributed over the two eyes except when of small amount. It is not often that a patient will wear more than 3$^{\Delta}$D. over each eye with comfort or without complaining of the appearance of the glasses. Where the hyperphoria varies for distance and for near in the reading position, White advises that vertical prisms which will fully correct the amount of hyperphoria found when the readings are taken at 20 feet and the target or light is placed on the floor be incorporated in the glasses. This corrects an intermediate amount between that found in the horizontal plane and in the reading plane. Some advise correcting not more than the lowest error which is found in any plane. Experience has shown us, however, that after wearing prisms for some time the patient may return with what appears to be an increase in the amount of his hyperphoria. This is the latent deviation coming out and not a real increase of error. Marlow's occlusion test for hyperphoria is excellent for bringing to light this latent hyperphoria. In actual practice the Marlow occlusion test is seldom used because of the inconvenience to the patient and because most oculists feel that it is inadvisable to correct in the initial prescription, the total hyperphoria uncovered by this test. Patients take more kindly to correcting the manifest vertical deviation as shown by the phorometer and from time to time to add stronger prisms should a latent deviation present itself.

Deviations of more than 6$^{\Delta}$D. will need surgery. Whether a shortening operation of the paretic muscle causing the hyperphoria or a tenotomy or recession of the overacting associated muscle in the other eye is chosen as the operation of choice, depends upon the individual case and experience of the surgeon. Where possible it is more logical to attempt to increase the action of the paretic muscle by a shortening operation than to disturb the action of a normal muscle. At times in the higher degrees of vertical deviations it is necessary to attack both sets of muscles.

The finding of an exophoria or esophoria is of little significance until the entire muscle balance has been taken. We are then able to determine the type of muscle imbalance present and to outline the appropriate treatment should the symptoms warrant. We have all seen patients whose muscle balance falls well outside the limits of normal and yet cause no symptoms. Some of these are found to have a very poor fusion sense and have learned to suppress when binocular

vision becomes too difficult. There can be no adequate excuse for acquainting the asymptomatic patient of an abnormal muscle balance and certainly no reason, other than commercial, for subjecting him to a costly course of orthoptic training.

Exophoria is the most common phoria and small amounts do not cause trouble and may be regarded as normal. It often develops in later life because of failing accommodation. Exophoria is of two kinds—convergence insufficiency and divergence excess.

In convergence insufficiency, which is much the more common, there is an exophoria which is greater for near than for distance. This is quite a normal state to find as we approach the presbyopic age, since convergence practically always lags behind accommodation and this insufficiency of convergence must be considered as physiological when accommodation becomes weaker. It is also found in myopes who are not wearing their myopic correction for close work or who are undercorrected. It, however, may be secondary to a divergence excess of long duration or a convergence paralysis. The convergence near point is found to be remote (more than 9 cm. PcB). The adduction is low and is accomplished with difficulty while the abduction power is normal or increased. An example of this class of exophoria in a young individual is the following:

Age: 33. H. & C. R.+8.25+0.37×122=6/12+
L.+8.00+1.00× 75=6/12+
Muscles: Exophoria 1$^{\Delta}$ distance, 17$^{\Delta}$ near.
PcB. 115 m.m.
Adduction 5$^{\Delta}$D
Abduction 5$^{\Delta}$D

Treatment of exophoria is much more successful than is the treatment of the other horizontal phorias. This is especially true when the exophoria falls into the convergence insufficiency group. These patients should be refracted and given full correction if myopic or if hyperopic add plenty of minus sphere and let him accommodate. For best results, the patient should wear glasses at all times. Those not relieved by refraction may have prism exercises (prism base out) and as there is more exophoria for near than for distance, the prisms should be used at the usual reading distance. Finger to nose exercises are also helpful. Prisms for wear (base in) may be added to the patient's correction but they should not be given more prism than the error found for distance. My experience has been that horizontal prisms incorporated in their glasses give only temporary relief of symptoms, and are, therefore, only infrequently used in this condition. The high degrees of this type of imbalance unrelieved by the medical therapy may need operation. Shortening of one or both internal rectus will usually help considerably. Recession or tenotomy of an external rectus is definitely contraindicated in this group.

In divergence excess the exophoria found is greater for distance than for near. The convergence near point and adduction power are normal. Abduction, however, is abnormally great (over 9$^{\Delta}$). This is often a primary condition or may be secondary to a progressive convergence insufficiency. It often remains stationary for a number of years. An example of a refraction case showing exophoria due to divergence excess is as follows:

Age: 35. H. & C. R.+0.87+0.25×100=6/4.5
L.+1.00 =6/4.5
Muscles: Exophoria 18$^{\Delta}$ distance, 9$^{\Delta}$ near.
PcB. 90 m.m.
Adduction 21$^{\Delta}$D.
Abduction 14$^{\Delta}$D.

We have found little if any help from glasses in those refraction cases showing exophoria of the divergence excess type. This is undoubtedly due to the accommodative element being lacking. Prism exercises (base out) for distance are advocated and in the occasional patient may give some relief. Prisms (base in) incorporated in the glasses may also occasionally give relief. One should not, however, give more prism than the amount of exophoria found for near. Those exophorias due to divergence excess which are not relieved by the medical therapy, are always relieved by a recession of one or both externi. Our experience shows that by far the majority of the exophorias of this group will require surgery.

The excessive convergence produced by esophoria often distresses the patient very much. It is the most difficult of the phorias to correct for the reason that esophoria occurs in strong and neurotic individuals and the neurotic element makes them difficult to manage. Here the refractive error is very important. There are two varieties of esophoria—convergence excess and divergence insufficiency.

In esophoria due to convergence excess, we find the esophoria greater for near than for distance. The convergence near point is normal or abnormally close. Adduction is normal or increased and abduction is normal. Clinically, this is the more common type of esophoria found and as a rule is associated with an excess accommodation and, therefore, accompanies undercorrected hyperopic states or poor vision due to poor illumination, etc. An illustrative case is as follows:

Age: 22. H. & C. R. —0.12—0.25× 7=6/6+
L. —0.50+0.75×90=6/6+
Muscles: Esophoria ½$^{\Delta}$ distance, 6$^{\Delta}$ near.
+1.25 add to above=2$^{\Delta}$ near.
PcB. 85 m.m. Adduction 19$^{\Delta}$, Abduction 4$^{\Delta}$.

The correction of convergence excess is often accomplished by giving the fullest hyperopic and

the weakest myopic correction that the patient will accept. Where the vision is blurred too much by this method, it is well to give bifocals with enough plus sphere added to correct most of the esophoria. Prism exercises (base in) at the reading distance are advocated but have not been productive of results in my cases. The same is true of prisms incorporated in the glasses. Severe cases unrelieved by the medical treatment may need operation. This should be done only as a last resort and only after the general condition of the patient has been gone into thoroughly. The lighting conditions at the patient's place of occupation and at home should be checked. Rest and sedation should be tried in those showing indications of overwork and a high nervous tension. A neurotic tendency should be corrected wherever possible. Operation on this latter group often tends only to intensify the symptoms. After ruling out all these conditions and deciding upon operation, a recession of an internal rectus is indicated.

In esophoria due to divergence insufficiency, the esophoria is found to be greater for distance than for near. The convergence near point is normal, the adduction is normal or increased, and abduction is low (less than 2^{Δ}-3^{Δ}). Example:

Age: 48. H. & C. R.$+3.00+0.50\times 92=6/6$
L.$+2.25+0.25\times 90=6/6$

Post took $+1.50$ add for reading.

Muscles: Esophoria 23^{Δ} distance, 12^{Δ} near W.C.
PcB. 85 m.m.
Adduction 21^{Δ}, Abduction 0^{Δ}

Esophoria due to divergence insufficiency is not so likely to be helped by glasses or exercises but may be tried. In my own cases I could find no instance in which any appreciable relief was experienced by the patient from the use of glasses or prism exercises (base in). On the other hand, except when the esophoria is of low degree, these cases obtain great relief from operation. A shortening operation on one or both external rectus is indicated. Recession of an internus will give little if any correction and is contraindicated in this type of esophoria.

SUMMARY

The extraocular muscle balance should be determined as a part of each routine refraction and appropriate treatment started to rid the patient of the symptoms caused by the motor anomaly. The status of extra-ocular muscle balance as given by the phorometer readings should be viewed as a whole rather than as to its component constituents in order to better determine the type of muscle imbalance present and to outline the appropriate treatment. Inadequate results from treatment of disturbances of ocular motility can usually be avoided by properly classifying the motor disturbance found. No patient showing a phoria of any degree should be operated until the maximum effect has been obtained from all nonsurgical methods of treatment.

201 So. Main St.

Dermatitis Venenata

In acute dermatitis of contact origin, I have found the simplest of medicines the most satisfactory. The skin may be freed of previously applied greases by means of benzene. Pure white vaseline is put on to protect denuded nerve endings, and soft, clean towels, cool and wet with plain water or aluminum acetate 1 to 500 in water, are superimposed. This is comforting, and it is as nearly completely bland as I can devise. The patient is denied coffee and is given aspirin, five grains every three hours, unless intolerance occurs. I think bromides are too prone to intoxicate, for I have seen profound and prolonged mental disturbance from a few doses of seemingly reasonable quantities; and I think barbiturates depress the emotions without giving relief from itching. Aspirin does give relief, and intolerance to it, said to be more frequent in allergic disease has been decidedly uncommon in my experience. What the weary, itching patient wants is respite from bedevilment by his skin; he ordinarily requires no other encouragement to sleep.

Any nonirritating moist compress is equally serviceable. Boric acid, 30 grains to the pint of water, potassium permanganate (1:5000), or mercuric chloride (10,000) may be used. If no allergen remains or secondary infection exists, vaseline and cool water are wholly adequate, as they are in the treatment of sunburn. Calamine lotion with 1 per cent phenol is useful if there is no oozing and the area is not hairy. On oozing dermatitis it simply cakes and cracks.

If secondary infection exists, 1 or 2 per cent gentian violet in water may be applied daily, and bichloride (1:10,000) or permanganate (1:5000) packs or soaks are to be preferred. Mercury intolerance is common, and mercurial irritation will be seen if the concentration is allowed to increase by evaporation without renewing the packs.

Proprietary preparations are urgently contraindicated. To use them presupposes incomplete interpretation of the disease under treatment; for, if a doctor is presumably intent on preventing irritant contacts, and applies a medicine the ingredients of which he does not know and reaction to which on the part of his patient no one can predict, then he is not practicing medicine.—Richard L. Sutton, Jr., M.D., Kansas City, Mo.; Jr. Kansas Med. Soc., Vol. XL, No. 8, Aug., 1939.

Psychosomatic Considerations in "Essential" Hypertension

DWIGHT M. PALMER, M.D.

The Author

● Dr. Palmer, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1932; member American Association of Anatomists; Columbus Neuro-Psychiatric Society; consultant in neuro-psychiatry to University and St. Francis Hospitals; assistant professor of anatomy; instructor in medicine (neuro-psychiatry) at Ohio State University.

At the present time the term "essential" hypertension is applied to those cases which show a progressive elevation in both the systolic and diastolic blood pressures in the absence of marked peripheral arteriosclerosis and of other less common conditions such as suprarenal tumor or toxemia of pregnancy.

"Essential" hypertension is a broad subject which has been investigated from many angles. The etiology of the condition is still an unsolved problem and almost every physician is confronted by perplexing questions in the management of these cases.

Therefore it seems worthwhile to review the recent literature on the psychosomatic approach to hypertension. In the first place, it should be noted that the psychosomatic approach is not to be confused with the following approaches—psychiatric, psychological or psychogenic. Psychosomatic Medicine is that viewpoint in Medicine which attempts to look upon the whole patient, that is an individual with a disease, not merely a case that may fit into a pathological classification. In the second place it should be understood that advocates of a psychosomatic approach seek to embrace all other approaches to Medicine rather than to exclude them. In the subject under discussion an attempt is made to consider the individual with hypertension from all viewpoints, both somatic (neural, vascular, humoral) and psychic. This concept was reviewed in greater detail in a previous paper[1].

Hypertension is an extremely common condition and bids to become more so since the aged are forming a larger percentage of the total population each year. High blood pressure is said to be a factor in almost one-fourth of all the deaths past 50 years of age in the United States. The condition has a particularly high incidence in the American negro. Weiss and Prusmack[2] found that the condition appears about a decade earlier in the negro than in the white race, and furthermore that the complications reach a peak 10 years earlier in the negro.

PHYSIOLOGICAL BACKGROUND

The blood pressure is normally maintained and also varied from time to time by a physiological mechanism, the details of which are not well understood. There are three possible factors which are operative in this moderating or governing mechanism. These are: (1) physical factors such as the force of the left ventricular contraction, blood viscosity, etc., (2) nervous factors that regulate the size of the arterial tree from the heart outward to the capillaries and which are thought to be most active in the arterioles and the precapillaries, and (3) humoral or chemical agents which appear to act directly on the vessel walls to increase or decrease the caliber of the conducting tube.

Of these three sets of operative factors the physical group is definitely of the least importance, while the humoral factors seem to be of the greatest consequence. At the present time it appears that the kidney is the source of these humoral or chemical agents.

This knowledge of the role of the kidney is theoretical as far as blood pressure in the "normal" human subject is concerned. But there is little or no doubt that it is true in experimental laboratory animals as shown by the extensive investigations of Goldblatt[3] and his co-workers. They have demonstrated that it is possible to induce hypertension in a laboratory animal by rendering one or both kidneys partially ischemic. This is accomplished by placing a special type of silver clamp on the main renal arteries. By the use of this clamp the lumina of these vessels may be reduced to any desired caliber. In the dog and in the monkey the constriction of the main artery of one kidney results in elevation of the blood pressure that persists for weeks but which usually returns to normal in one month. The adequate constriction of both main renal arteries at the same time or with an interval between the clampings results in persistent hypertension.

It has been determined experimentally that the hypertension which follows is not due to nervous reflexes from the ischemic kidney. Thus it seems that some chemical substance must be released from the ischemic kidney into the general circulation.

It may be possible that the normal transient excursions of blood pressure are due at least in

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part to the action of chemicals which the kidney either adds to the circulating blood or fails to remove from it. However this is theoretical at the present time.

If it is shown that human clinical hypertension rests on the same mechanism as the experimental hypertension just described, there is still to be explained the cause of the renal ischemia. We should be careful to interpret renal ischemia as a mechanism in hypertension and not as a cause. The latter is still to be found. Katz and Leiter[4] state "The demonstration of the central role of the kidney should not be mistaken as the solution of the ultimate mechanism of hypertension".

Pickering[5] and also Prinzmetal and Wilson[6] have performed experiments which appear to prove that the second set of factors—that is nervous impulses which pass out over the vasomotor nerves—has a minor role at most in increased blood pressure. Sodeman[7] holds that although the evidence for the non-nervous origin of essential hypertension is meager, it is clear-cut, to the point and convincing. But Wiggers[8] states that in addition to the humoral agents, nervous mechanisms may have an additional temporary or permanent role in the elevation of the blood pressure. This additional nervous regulatory mechanism will be further discussed below under the management of hypertension.

PSYCHOSOMATIC INTEGRATIONS

The relationship between various psychological states and the physiological regulation of the vascular system is an open and much debated question. The more important viewpoints are as follows:

1. The psychological or cause and effect concept is that psychological materials, (thoughts, ideas, psychic aspect of emotion) can directly cause alterations in the cardio-vascular system by the passing of nerve impulses from the higher levels of integration in the brain down through the hypothalamus and medulla to the nuclei of origin of the parasympathetic and sympathetic neurones. To put it more simply, the concept states that mental activity controls the blood pressure.

2. An opposing viewpoint is that the vascular system is regulated by receptor (sense-organ)—effector (muscle of the vessel) reflex neural pathways. As the sensory impulses are carried in to be correlated in the spinal cord and brain they are distributed in two directions. First, they pass out to the blood vessels over the motor side of the reflex arcs and result in vasomotor phenomena. Second, they pass over ascending pathways into the higher levels of the nervous system and appear as conscious symbols to be used in thoughts and ideas. Thus, according to this view the psychological material is a side-product of the receptor-effector mechanisms and as such does not have any direct control of the blood vessels.

3. The psychosomatic viewpoint is not identical with either of these concepts. It looks upon the individual first as an animal with a physiological mechanism for the regulation of the blood pressure that is dependent upon whatever is basic in the moderator mechanism (probably humoral agents plus neural patterns). In addition it looks upon the individual as a new combination of mentally integrated patterns of reaction which tend to follow out a life pattern along certain lines of habit formation. It does not hold on the one hand, that "the mind" raises the blood pressure, or on the other that blood pressure is controlled entirely by a physicochemical mechanism and that the individual's mental behavior is purely concomitant or accessory. It does teach that the individual reacts to his environment and is modified by it as a psychosomatic unit. He reacts favorably or unfavorably with his entirety, of which his blood pressure is only an aspect. Therefore when a man mentally registers aggression, physiologically he shows a marshalling of his body reserves in the form of a rise in blood pressure. Thus the blood pressure is but one aspect of the man. It is manifest with the other components and should not be separated from them.

PSYCHOSOMATIC CONSIDERATIONS IN THE ETIOLOGY OF HYPERTENSION

Weiss[9] has recently summarized the pathogenesis of this condition by picturing a three-sided pyramid to represent the contributing factors. The pyramid represents the hypertensive individual with his hereditary and environmental (habit formation, education, etc.) acquisitions. The three sides of the pyramid are aspects of this total person and are labelled psyche, vegetative nervous system and endocrine glands. It should be understood that the nature of each of these three aspects is individual and peculiar to the person. Studies of series of cases show that certain characteristics of these three aspects are found with sufficient frequency to be considered of significance. Thus under psyche we may list unconscious conflicts, hostility and aggression, and under the vegetative nervous system we may include vasomotor instability. The endocrine aspect is still in the research phase. Renal ischemia may later be placed here or it may be included with the vegetative nervous system.

Such a grouping of the aspects of the problem is valuable because it emphasizes the psychosomatic totality of the individual.

Under considerations in the etiology we are to think of a psychosomatic unit, a man, in his own particular environment and we are to consider those factors in this individual—environmental relationship that may be operative in the development of hypertension. First, there is the problem of whether or not this individual is predisposed to develop hypertension and if so what are the causes for this predisposition. Second, we shall consider whether or not civilization as it is manifest in his environment is a factor in his ultimate hypertensive state.

1. Heredity and Pseudo- (or Social) Heredity. It has long been recognized that hypertension

is much more common in some families than in others. Some workers have studied this relationship by means of a standard stimulus, usually the cold-pressor test devised by Hines and Brown. The recently introduced breath-holding test of Ayman and Goldshine[10] is also available for this type of investigation. Such testing has shown that the children of hypertensive parents show a higher percentage of blood pressure instability than do children of parents with normal blood pressure. This has been described as a hereditary effect and some authors have even suggested that it acts as a dominant unit in a Mendelian ratio.

However there is another possibility that may help to explain the high incidence of hypertension in certain families. This factor is known as pseudo-heredity or social heredity. The personality patterns of the parents are of the greatest importance. This is discussed more fully below. Each family carries with it certain mores, traditions and goals. Competition is more marked in some families; certain children "are pushed" much more than others due to the social and philosophical aims of one or both parents. Life is more competitive in urban than in rural communities and individual variations abound. Thus a person may acquire habits both by imitation of others and by environmental conditioning that are peculiar to himself, his family or his social group. These habits may be clustered around patterns that express aggression and thus elevation in blood pressure may become a conditioned response with him.

It is probable that pseudo-hereditary and hereditary factors are both active in the pathogenesis of hypertension.

2. Relationship of Hypertension to Civilization. Hypertension is one of the diseases that is rather generally agreed to be, for the most part if not entirely, peculiar to civilized man. Donnison[11] has made a study of some African natives and found that up to the age of 40 the blood pressure readings parallel those of English and American subjects of the same age groups. After the age of 40 the blood pressure tends to fall in the African while it tends to rise in civilized peoples up to the eighth decade. The general impression is that high blood pressure is rare in primitive races and that the incidence of the condition rises with the development of towns and with education.

There are three types of factors which may be operative to link hypertension with civilization (Donnison[11]).

A. Over-Eating. Civilized man is prone to over-indulge in food as compared with members of native tribes and with the poor classes in China for example. Clinically there is a slight but positive correlation between overweight and high blood pressure. Reduction in weight is employed by some clinicians in the treatment of hypertension.

B. Early Faulty Conditioning to Life. Life in civilized society involves more contacts with other individuals and greater consideration of them than does existence in a primitive culture. The individual is faced with complex adjustments and these involve intellectual as well as emotional conditioning. From the emotional standpoint there are numerous opportunities for the individual to become poorly conditioned either to life as an entirety or to objects or persons in the environment. The parents, particularly the mother, have a major role in conditioning the child. If the mother is maladjusted she may condition the child to fear life rather than to face it. Since he fears it he will tend to be hostile. Thus early in life the child may become conditioned or "educated" to be a hyperreactor to certain situations. Increased arterial tension will then become part of his way of living.

Menninger[12] states that the hypertensive patient is characterized by an emotional pathology in the form of a strong undercurrent of fear. This fear is usually not overtly expressed; in fact, the hypertensive patient is quite often marked by his external poise, his gentleness and amiability and by considerable social and financial success. Therefore outwardly these patients do not seem to be "nervous" or "worried".

But despite their placid exterior these hypertensives are inwardly tense, fearful, aggressive and hostile. In the cases studied by Saul[13] there was a chronic intense hostility. He further found that although this hostility was close to consciousness it was always strongly inhibited. Thus a continual state of emotional tension existed.

The basis of such prolonged emotional tension can be best sought in the pseudo- or social heredity of the individual. Menninger finds that the childhoods of the hypertensive patients that he has studied were threatened by death, poverty or disaster. Other cases gave a history of the individual being forced to face life's bitter realities with self-reliance or self-support while he was still in late childhood or early adolescence. The presence of abnormalities in the parents and its effects in the family relationships appear to be of importance. The dominance of one parent especially of the mother and the consequent submission on the part of the child and later the adult lead to hostility against this sense of submissiveness. This form of childhood fixation results in many complexes which tend to prevent satisfactory heterosexual adjustments. The latter are often achieved only at the expense of extreme anxiety.

C. Prolonged Hyperactivity of "Emergency

Patterns".—As many writers (e.g. Crile[14]) have pointed out, civilization imposes many restrictions and taboos on the individual's reactions to stimuli that in a primitive society are followed by vigorous and often prolonged use of the somatic musculature. These are the emergency patterns of "fight or flight" of some authors. In civilized society it is the exception rather than the rule if man reacts to a frustrating situation by either physical combat or by running. Even though his "blood may boil" he is inhibited so that fight or flight does not take place.

However the basic emergency patterns for fight or flight are present in the human body. Situations in the environment which are followed by either aggression or retreat bring forth a two-fold response. There is a marshalling of the body economy on the somatic side to prepare for fight or flight and there is an awareness on the psychic side of the rage, hate, fear, etc. The elevation of the blood pressure is a part of this emergency pattern. Thus civilized society presents many more stresses on the blood pressure moderator mechanism than are found amongst primitive peoples.

The importance of these facts in the etiology of clinical hypertension is not yet clear. Several well authenticated observations support the idea that civilization is causative in high blood pressure. These include the high incidence of hypertension in the American negro as contrasted with its rarity in the native African, the "over-civilized" nature of the average hypertension case, and a few case studies by psychiatrists, (e.g. Alexander[15]), who have found a definite correlation between fluctuations of emotional tension and those of blood pressure readings.

The general practitioner, who sees the great majority of these cases, is in a position to make important observations that will help solve the problem of the importance of these factors in the etiology of hypertension.

PSYCHOSOMATIC CONSIDERATIONS IN THE MANAGEMENT OF HYPERTENSION

Regardless of the attitude of the individual physician towards the position of psychosomatic factors in the etiology of hypertension, there is little disagreement with the statement that in high blood pressure it is important to treat the patient as well as the disease. Some would say treat the patient rather than the disease to indicate that the condition is almost always progressive in character.

Even if humoral factors are found to be basic in clinical hypertension, there are still superimposed neural arcs which are part of the blood pressure raising mechanisms. Apparently it is these nervous patterns that result in the daily blood pressure fluctuations in the hypertensive person, and these same nervous mechanisms are capable of modification by psychotherapy which is aimed at the easing of psychic maladjustments.

Weiss[9] has emphasized that the physician should treat the patient rather than the blood pressure. He believes that although it is freely admitted that the height of the blood pressure is one of the best indices to the condition and prognosis of the patient with essential hypertension, it does the patient incalculable harm to put all of the attention on the matter of bringing the blood pressure down. He states that this is true whether or not psychosomatic factors are fundamental.

It is commonly noted that many of the symptoms that are seen in hypertensives do not appear with the rise of the blood pressure to any set figure. Some individuals with very high blood pressure have few symptoms. Others with much lower readings have many symptoms such as headache, weakness, chest pain, shortness of breath and even invalidism. Thus it would seem that the appearance of symptoms is largely conditioned by emotional factors rather than by the actual physical condition of increased blood pressure. The physician and the patient both stand to gain more if the former helps the hypertensive sufferer to accept his environment within the limits of his capabilities and to direct his interests into the environment rather than to his blood pressure or to his possible demise from one or more of the various manifestations of cardio-vascular-renal disease.

A. The Subject of "Worry". It is almost worthless to do two things that physicians are prone to do. The first of these is to ask a person if he worries and the second is to tell him not to worry. Curiously enough a person is not a very good judge of whether or not he worries. He looks at the subject only from the conscious viewpoint, while "worry" involves maladjustments at unconscious as well as at conscious levels. He is also dominated by such various factors as sympathy seeking, pride and imitation.

It does not do any good to tell a person to stop worrying unless an attempt is made to find out what is causing the person to do so. The patient should be given a long, quiet, personal, sympathetic audience. The physician should adopt a non-critical attitude and should avoid any attempts at reforming the patient. Any discussion of the subject of blood pressure or its possible sequelae, and particularly of the individual's pressure should be avoided.

B. The Therepeutics of "Rest". It is quite generally believed that rest is one of the best therapeutic measures for hypertension. From a psychosomatic viewpoint there are reasons to modify this general belief. When a person reaches adult

life and particularly the hypertensive period he is a mass of deeply channeled habit patterns. This type of patient has always been a hyperkinetic, over-active type of personality. Psychologically we feel that he is full of hostilities and aggressions. It is very questionable that it would be anything less than a full time job to radically change the basic pattern so late in life. The therapy of enforced rest is therefore open to question.

It seems more logical to follow Menninger's suggestion that we allow the patient to use those forms of somatic exercise that are acceptable to him and are compatible with his physical condition. If the patient is allowed to express himself within sane limits, and if this expression is such that he can relieve his inner tensions by using his aggressions against the environment in the form of walking, golfing and working at his usual trade or calling, he will be happier and it is questionable if his life will be shortened to any considerable extent.

In the regulation of work it is important to point out that a week-end outing is not adequate therapy for a tense week of work and frustation. If we think back to one of the etiological considerations it is remembered that blood pressure elevation is a concomitant aspect of preparation of the individual for somatic exercise in emergency situations. Thus if trying situations are met during the days of the week, the somatic exercise should be taken at those times instead of on the next week-end. The patient should have a program that would enable him to relax from his mental work during the day by taking some light physical exercise followed by a rest period. This should take place more than once during the day. The patient's home life should be planned so that he has no evening or night work and that periods of light exercise and mental relaxation are frequent (Stewart[16]). Vacations should be short and numerous rather than once a year. The patient should have long hours for sleep or rest in bed. The adoption of a hobby is often of benefit, but it should not carry with it the compulsion of competition either with others or with a rigid self-imposed high standard of performance.

In all of these procedures, the patient's trends and even his peculiarities are to be considered. He must be given ample audiences and his troubles and all problems (except his blood pressure) should be discussed at length. The fact that his complaints appear to be trivial to the physician is no reason for lightly dismissing them.

SUMMARY

Hypertension is one of the great problems that confronts the medical profession and the causative factors of this condition are but incompletely known.

The psychosomatic approach to medical problems is not the same as and should not be confused with a "psychic" approach. The concept of psychosomatic medicine is that man and his environment form an interacting unit and that mind and body are aspects and not parts.

From a psychosomatic viewpoint the etiology of hypertension includes a constitutional type of individual who has attained a liability to develop hypertension partially from true heredity but largely by faulty environmental conditioning. He is a hyper-reactor to his environment because of basic maladjustments. The failure to find satisfactory adjustments is linked with a deeplying and concealed hostility which seldom finds a parallel release of tension through somatic expression.

In the management of these cases the physician should stress the treatment of the person rather than his blood pressure. A quiet friendly discussion of the patient's problems and life trends with the establishment of a lightened work program with frequent opportunities for mental relaxation and light physical exercise followed by physical and mental rest is far better treatment than enforced somatic rest without consideration of psychic tension.

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A girl with typical appendicitis symptoms for four months had urine containing a few pus cells. The right ureter was investigated, and found to have a stricture with a hydronephrosis. With dilatation, all symptoms disappeared.—William E. Stevens, San Francisco.

The Role of the Cardiac Output in Congestive Heart Failure

JOHNSON McGUIRE, M.D.

SINCE subnormal, normal and supernormal values for cardiac output have been reported in patients with congestive failure the role played by alterations of this function in the causation of cardiac decompensation has given rise to considerable controversy. It is apparent that if increased output by the failing heart sometimes occurs, the necessity for explaining this apparent paradox arises.

The cardinal manifestations of congestive heart failure have been ascribed by Mackenzie[1], Lewis[2], Blumgart[3], and others to inadequate cardiac output in proportion to the metabolic requirements of the body. According to this theory dyspnea is due to a decrease in cerebral blood flow, and edema to anoxemia of the tissues.

Harrison[4] has recently criticized the so-called "forward failure hypothesis" and has brought forward evidence supporting the "back pressure theory" of cardiac failure. The advocates of the back pressure theory believe that increased intravenous pressure from a failing chamber of the heart produces engorgement of pulmonary or systemic veins. With high levels of venous pressure in the lungs pulmonary edema occurs. With rising systemic venous pressure engorgement of the liver, ascites and dependent edema develop. Dyspnea according to this theory is produced by reflexes arising from the engorged lungs and stimulating the respiratory center. A decrease in cardiac output for a short period of time is thought to be the precipiating mechanism for increased back pressure.

It is apparent that accurate knowledge of the cardiac output in normal individuals and in patients with congestive failure (in proportion to the bodily requirements) is of critical importance in evaluating the role played by alterations of the volume of cardiac output in initiating and maintaining congestive heart failure. Before considering the controversial evidence concerning the level of cardiac output in congestive heart failure a description of certain of the modern methods for measuring this function will be discussed.

METHODS

The cardiac output is the quantity of blood pumped by the heart in unit time. The amount of blood delivered by the heart into the aorta (an equal amount is simultaneously pumped into the pulmonary artery) is designated in terms of liters per minute, or as cc. per beat, the latter value is called the stroke volume.

The yardstick, whereby various methods for determination of cardiac output are evaluated, is based on the principle originated by Fick[5]. In 1870, Fick pointed out that since all oxygen taken up by the body is absorbed by the blood in its passage through the lungs simultaneous measurement of the oxygen content of the blood in the right and left sides of the heart would indicate the amount of oxygen absorbed by the blood in its passage through the lungs. If at the same time the total oxygen absorbed by the body was measured the amount of blood necessary to take up this amount of oxygen could be calculated. In other words if the left heart contains 19 cc. oxygen per 100 cc. of blood while the right heart contains 13 cc., obviously each 100 cc. of blood passing through the lungs has absorbed 6 cc. of oxygen. If the oxygen consumption, as determined by the usual basal metabolism apparatus is 60 cc. per minute, it is self-evident that the cardiac output $= \frac{60}{6} \times 100$, i.e. 1000 cc. per minute.

In experimental animals samples of blood from the right and left hearts can be obtained by cardiac puncture. While this procedure has been occasionally carried out in humans, the hazard of injuring a coronary vessel contraindicates its general use. For this reason many indirect methods based on the Fick principle have been devised. The underlying principle of these techniques is based on determination of the oxygen or carbon dioxide tension of the mixed venous blood and of the arterial blood. By equilibrating blood in vitro with samples of alveolar air and with the pulmonary gases after holding the breath, rebreathing into a rubber bag, or other measures designed to bring the respired air in equilibrium with the mixed venous

The Author

Dr. McGuire, Cincinnati, Ohio, is a graduate of Johns Hopkins University School of Medicine, 1924; member Association of American Physicians; Central Society for Clinical Research, American College of Physicians; attending physician, Cincinnati General Hospital; in charge of cardiac laboratory; associate professor, department of internal medicine, University of Cincinnati College of Medicine.

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blood, the arteriovenous gaseous differences can be approximated.

A recent method for determination of cardiac output in man is the injection method originated by Hamilton, Moore, Kinsman and Spurling[6]. These investigators inject a dye into an antecubital vein and analyze successive samples taken at frequent intervals from the femoral artery. From the concentration curve thus obtained the cardiac output may be calculated.

Other methods for cardiac output depend upon measurements of the rate of absorption of a foreign gas by the lungs. The underlying principle of such procedures is based upon the assumption that the amount of a foreign gas absorbed by the blood in its passage through the lungs is determined by the pulmonary blood flow. Hence by measuring the rate of absorption of such a gas and knowing its solubility in blood one can calculate the amount of blood passing through the lungs, i. e. the cardiac output. The best of these methods, the acetylene method, was originated by Grollman[7], who has employed this procedure to make a comprehensive and original investigation of cardiac output as related to health and disease. In his monograph on Cardiac Output the technical and theoretical aspects of this and other methods of cardiac output are thoroughly discussed.

NORMAL VALUES FOR CARDIAC OUTPUT

Grollman has investigated the cardiac output of 50 normal young adults in the basal resting condition with his acetylene method. The average output for the group was 3.87 liters per minute, in terms of body surface the average was 2.2 liters per minute per square meter of body surface. These subjects had fasted for 12 hours and had been at complete bed rest for at least one-half hour before the determinations of cardiac output were carried out.

The following physiological conditions have been shown to increase the cardiac output: muscular exercise, digestion of food, temperature above 30° C., anoxemia, emotional excitement, pregnancy.

Pathological conditions which increase the cardiac output are (1) hyperthyroidism, (2) anemia, (3) fever, (4) arteriovenous aneurysm, (5) psychic disturbances, (6) high altitudes. On the other hand (1) cardiac irregularities, (2) myxedema, (3) chronic constrictive pericarditis and pericarditis with effusion, (4) pneumothorax, (5) surgical shock, reduce the cardiac output.

PHARMACOLOGIC MODIFICATIONS OF CARDIAC OUTPUT*

Drugs which are stated to increase cardiac output are caffeine, CO_2 in high concentration, adrenalin, ephedrin, histamine, amyl nitrate, theophyline. Digitalis usually increases the cardiac output of dilated hearts. Drugs which are said to decrease the cardiac output are morphine, strychnine, quinidine. Digitalis decreases the cardiac output of the normal heart, even when the rate of the heart is unaffected probably by reducing the venous return from the liver since digitalis has been shown to constrict the hepatic vein.

CARDIAC OUTPUT IN CONGESTIVE HEART FAILURE

Contradictory results regarding the level of cardiac output in congestive heart failure have been reported by various investigators[4]. The results obtained with the older indirect methods have been seriously questioned because of probable inaccuracies inherent in these methods. However, even with the direct Fick method, as well as with the newer and more accurate indirect methods, such as the three-sample acetylene method of Grollman, and the dye injection method of Hamilton, Moore, Kinsman and Spurling, in the vast majority of patients with heart failure subnormal values have been found. However, occasionally normal and supernormal levels for cardiac output have been reported by these authors. Employing the three-sample acetylene method of Grollman we[8] have measured the cadiac output in 20 patients with congestive heart failure of varying severity, the mean cardiac output under basal conditions was 1.52 ± 0.06, while in a group of 16 "normal" subjects of similar ages and in varying degrees of physical fitness, the mean value for the basal cardiac output was 2.16 ± 0.03 liters per square meter per minute.

From these observations it is apparent that the majority of patients with congestive heart failure have subnormal cardiac outputs. Since normal and even supernormal cardiac outputs are occasionally encountered in cardiac decompensation it would seem at first thought that a decrease in the output of the heart is not of fundamental importance in the genesis of heart failure. However, if it is appreciated that certain factors known to elevate the output of the normal heart are usually present during decompensation the seeming paradox of normal and even higher than normal values for cardiac output occasionally present during failure can be understood. Even a tired horse will walk faster if whipped. These factors are (1) the exercise associated with hyperpnea, (2) elevated venous pressure, (3) increased metabolism, (4) anxiety and apprehension, (5) low grade fever (rectal). These conditions prevent the attainment of a truly "basal" state by the decompensated patient, and if duplicated in an individual with a normal

*Unpublished observations now in progress in our laboratory have cast considerable doubt upon the influence of certain of these drugs upon cardiac output.

heart would undoubtedly lead to a marked increase above that found in the "basal" state.

For these reasons it seems logical to believe that disease of the myocardium diminishing systolic discharge of the ventricles (invariably decreased in relation to the accelerated physiological activities of the decompensated individual) is the initial factor responsible for cardiac failure. Such decrease in cardiac output necessarily produces increased intravenous pressure (back pressure), and diminished peripheral flow (forward failure) simultaneously. Thus, if a pump designed to expel 50 cc. per stroke ejects only 40 cc., 10 cc. are dammed back into the feeding reservoir, and only 40 cc. are forced forward. Consequently, a vicious cycle is created by decrease of cardiac output (a combination of forward failure and back pressure occurring simultaneously) and the characteristic manifestations of cardiac failure, edema, dyspnea, hyperpnea and cyanosis result.

It is true that in primary or secondary shock the cardiac output is low and no manifestations of congestive failure are noted. However, in shock, unlike cardiac decompensation, the volume of circulating blood is low and the venous pressure subnormal. Consequently, the conditions are not comparable, as in one instance the heart pumps away the blood brought to it, in the other it fails to do so.

It seems likely that when cardiac decompensation persists it is due to the inability of the heart to increase its output in a normal manner when such stimuli as rising venous pressure, increased oxygen consumption and hyperpnea develop. This theory received additional support from the demonstration that decompensated patients cannot increase cardiac output with exercise as do normal subjects[9].

Harrison's[4] brilliant studies concerning the pathologic physiology of congestive failure have convincingly demonstrated that back pressure is the principal factor responsible for the cardinal manifestations of congestive heart failure. However, the simultaneous reduction of forward flow with the frequent decrease in oxygen saturation of arterial blood and reduction of the volume of blood supplied to the tissues are in all probability contributory factors to the dyspnea, edema and cyanosis of cardiac decompensation.

CONCLUSION

1. Subnormal cardiac output in proportion to metabolic requirements is the rule in congestive heart failure, and is probably the fundamental cause of cardiac decompensation.

2. While "back pressure" is the principal mechanism responsible for the symptoms of congestive heart failure, the "forward failure" and the "back pressure" factors cannot be divorced. They develop simultaneously as the result of decreased cardiac output and operate conjointly to produce the clinical manifestations of cardiac decompensation.

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Allergic Manifestations in the Central Nervous System

The mental effects of allergy have received very little study, though nervous symptoms are so common in association with the allergic diseases that until recently asthma, urticaria, angioneurotic edema and migraine were thought to be primarily diseases of the nervous system.

It is a matter of common experience that the asthmatic child, though amenable normally, becomes, during an asthmatic seizure, irritable and disagreeable in the extreme. This nervous excitability is usually considered to be the result of the discomfort of the attack getting on the child's nerves. This, to a considerable extent, is probably true, but numerous cases have been reported by Shannon and other allergists in which high strung, nervous, unruly, and disagreeable children who showed none of the accepted manifestations of allergy have been found to be hypersensitive to certain foods—most commonly wheat. When the offending proteins were removed from the diet these children's mental attitude toward life has changed and in a few weeks the spoiled, irritable child has become happy, contented, and friendly. Insomnia, too, has been overcome by correcting the diet in allergic patients.—T. Wood Clarke, M.D., Utica, N. Y.; N.Y.S. Jr. of Med., Vol. 39, No. 15, August 1, 1939.

Official Report of the Hospital Obstetrical Society of Ohio for 1938

Compiled and Edited by
Burdett Wylie, M.D., Asst. Secretary
Lakewood, Ohio

THIS report has been compiled from the monthly reports sent in during 1938 by the member hospitals of the Hospital Obstetrical Society of Ohio.

During the year these reports were received regularly from 43 institutions. Two institutions sent in partial reports and only one failed to cooperate in the making of this study.

The women cared for presented the following conditions:

Abortions (all cases prior to 6½ months)	2,655
Ectopic Pregnancy	211
Viable, Deliveries (6½ months and over)	39,095

In addition there were 212 cases which had been delivered at home but who were admitted for post-partum care. This gives a total of over 42,000 women who were cared for by the hospitals included in this report. This compares with our 1937 report* which covered approximately 37,500 cases.

Analysis of some of the data follows:

METHOD OF DELIVERY

There were 39,821 reportable births (4½ months or over). These were delivered as follows:

Spontaneous	18,482	46.4% of Births
Operative	21,339	53.6% of Births

Further analysis of the operative

Forceps	Number	% of Births
High	176	.44%
Mid	1,908	4.78%
Low	9,975	25. %
Low-elective	6,011	15.1 %
Total	18,070	45.3 %

Considering the spontaneous and simple forceps together we find:

Spontaneous, low and low-elective	34,468	86.5% of Births
Remaining operative cases	5,351	13.5% of Births

Caesarean Section	Number	% of Births
Classical	605	1.52%
Low Cervical	288	.72%
Other (Porro, etc.)	54	.15%
Total	947	2.39%

Other operative deliveries occurred as follows:

	Number	% of Births
Breech Extraction	1,456	3.66%
Podalic Version	769	1.93%
Embryotomy	19	.05%

It is interesting to note that when compared with corresponding figures for 1937 all types of operative delivery show a decreased incidence in 1938 except low-elective forceps which show an increase of about 3 per cent over the figure for the previous year. This gives a slight net increase in operative deliveries for 1938 over 1937.

In addition to the operative procedure used to deliver the patients there were a number of other non-delivery operative procedures employed.

The most frequent non-delivery interference was operative induction of labor: 332 cases or 0.83 per cent of births. Then there were 150 cases—0.38 per cent of births, in which there was some other form of non-delivery operative interference. Under this heading is included any type of operative interference which is neither an induction of labor or a customary or usual part of a delivery procedure. It would include such procedures as manual dilatation; Dührssen's Incisions; the insertion of a bag to complete dilatation; the artificial rupture of membranes during the first stage; manual removal of placenta; packing; extensive or secondary perineal or cervical repairs and any other of the numerous procedures employed in addition to the actual delivery. The use of the episiotomy and the ordinary perineal repair is not considered as operative interference under this heading.

The majority of these cases were delivered by operative means but there was a small group, 98 cases (0.24 per cent of births) who delivered spontaneously but who because of the operative interference involved must be considered as "births with operative interference" even though the actual delivery was spontaneous.

OBSTETRICAL COMPLICATIONS

In calculating obstetrical complications we consider only those cases which have past "viability" (i.e., 6½ months or over).

Hemorrhage	Number	% of Births
Plac. Prev.—Cent.	59	.15%
Plac. Prev.—Marg.	129	.33%
Prev. Total	188	.48%
Premature Sep.	239	.61%
Total A.P.	427	1.09%
Post. Part. (1st 24 hrs.)	286	.73%
Post. Part. (Aft. 24 hrs.)	30	.08%
Total P. P. Hemorr.	316	.81%
Hemorrhage Total	743	1.9 %

Toxemia

Tox. without convulsions	867	2.2 %
Tox. with convulsions	137	.35%
Total Toxemias	1,004	2.53%

MORBIDITY TEMPERATURE

"Morbidity temperature is defined as any elevation of mouth temperature, regardless of cause to 38. C. (100.4 F.) or over on any two consecutive days, not counting the first 24 hours."

On the basis of this definition there were 1,628 morbidity temperatures reported, or 4.14 per cent of births, of these 304 or 18.9 per cent of the elevations were known to be of extra-genital origin and 201 or 12.4 per cent were known to be of extra-hospital origin. From which it would appear that in only about 3 per cent of confinements does there occur a temperature elevation for which the hospital care or obstetrical method might be held accountable.

OTHER SERIOUS COMPLICATIONS

Under this heading is listed a rather miscellaneous group of complications, all of which involve a serious threat to the satisfactory termination of the case. These are cases in which the doctor and hospital feel grave responsibility yet for the most part they involve conditions the origin of which is not at all under the control of the attendant. They have been roughly grouped as follows:

Pelvic deformity or disproportion	231
Cardiac and circulatory conditions	176
Kidney and urinary tract conditions	151
Non-puerperal infections	119
Circulatory disease	68
Respiratory complications	67
Uterine anomalies, rupture and inversion	49
Tuberculosis	32
Diabetes	23
Nervous and mental disease	19
Blood anomality	15
Toxic goitre	6
Cancer	2
Hodgkins disease	1

Adding this up we find:		2.26%
Other serious complications	899	of Births

Summary of condition on admission:	Number	% of Births
Known pathology on admission	1,854	4.7 %
Normal on admission	1,902	4.85%
Total maternal complications	3,756	9.55%

From this data it is seen that 49.1 per cent of the cases with complications were admitted to the hospital with known pathology.

MATERNAL MORTALITY

Considering the maternal deaths and classifying them so far as possible according to cause and whether or not they were primarily obstetrical, we find:

Cause of Death	Ob. Deaths	Non-Ob. Deaths	Total
Abortions	----	34	34
Ectopic	----	4	4
Early toxemia	----	2	2
Late toxemia	31	----	31
Cardiac	----	8	8
Hemorrhage	12	1	13
Shock	6	1	7
Anesthesia	2	----	2
Non-Sep. embolus	2	----	2
Ante-partum pneumonia	----	8	8
Post-partum pneumonia	3	1	4
Septic embolus	5	----	5
Post-partum infection	31	----	31
Kidney conditions	3	3	6
Ruptured uterus	10	----	10
Eversion of uterus	3	----	3
Acute yellow atrophy	3	----	3
Appendicitis	----	5	5
Diabetes	----	3	3
Tuberculosis	----	3	3
Intestinal obstruction	----	2	2
Cerebral hemorrage	----	2	2
Axillary abscess	----	1	1
Cancer of the breast	----	1	1
Transfusion nephrosis	----	2	2
	111	81	192

MULTIPLE BIRTHS

During 1938 there were 393 twin births or one in every 100 deliveries. There was one delivery of triplets.

FETAL COMPLICATIONS AND MORTALITY

In the following table are shown the various complications encountered and where a death has occurred it is listed under the probable cause of death even though it may have presented more than one complication. Stillbirths and neonatal deaths have not been separated.

Complications and Probable cause of deaths.	Cases Reported	% Births	Deaths	Mort.	% of Deaths
Prematurity					
Pre-viable	319	.80	208	65.2%	11.0
7 months	713	1.78	215	30.2%	11.2
8 months	696	1.74	76	10.9%	4.0
Total	1728	4.34	499	28.8%	26.2
Asphyxia	411	1.03	411	100.0%	22.0
Deformity	535	1.34	194	36.3%	10.3
Birth injury	282	.71	195	69.2%	10.4
Mat'nal toxemia	1004	2.51	139	13.8%	7.4
Mascerated	144	.36	144	100.0%	7.6
Erythroblastosis	25	.06	21	84.0%	1.1
Hem. Dis. of N. B.	18	.04	12	66.7%	.6
Mat'nal diabetes	23	.06	10	43.5%	.54
Lues	----	----	36	----	1.94
Enteritis	33	.08	14	42.5%	.75
Impetigo	162	.40	----	----	
Pneumonia	31	.08	17	54.9%	.92
G.C. ophthalmia	14	.03	----	----	
Other infection	136	.34	4	2.94%	.21
Not stated	----	----	210	100.0%	11.0

FETAL DEATHS
(According to Fetal Age)

Fetal Age	Cases Reported	% Births	Deaths	Mort.	% of Deaths
Under 6½ mos.	319	.80	319	100.0%	16.7
7 mos.	713	1.79	386	54.1%	20.2
8 mos.	696	1.74	245	35.1%	12.9
Total Premature	1,728	4.33	950	55. %	49.8
Term and not stated	38,093	95.7	956	2.52	50.2
Total	39,821		1906		

The mortality figures in the following table are somewhat low since there was a fairly large group of fetal deaths in which the method of delivery was not stated. The spontaneous deliveries have a high mortality since, of course, most of the premature and macerated cases tend to fall in this group. The data available is as follows:

FETAL DEATHS
(According to Method of Delivery)

Method	Births	Deaths	Mortality
Spontaneous	18,482	715	3.87%
Forceps	18,070	335	1.85%
Caesarean	947	102	10.77%
Version	769	97	12.61%
Breech	1,456	207	14.21%
Craneotomy	19	19	100.00%

MORTALITY SUMMARY
FETAL

	Cases	Mortality	
Stillbirths	1,064	2.68 %	
Neo-Natal Deaths	842	2.11 %	
Total	1,906	4.79 %	Gross Fetal Death Rate

MATERNAL DEATHS

	Cases	Deaths	Mortality
Abortions	2,655	34	1.28%
Ectopic Pregnancy	211	4	1.89%

Puerperal Death Rate—4.96/1000

This figure is based upon the total number of deaths occurring during or because of pregnancy calculated against the number of live births and corresponds with the figure calculated by the bureau of vital statistics.

Obstetrical Death Rate—2.82/1000

This figure is based upon the number of deaths from primarily obstetrical causes calculated against the number of viable deliveries thus constituting a true index of the obstetrical results.

14805 Detroit Ave.

An Aid in Combating the Effects of Oral Sepsis on the Stomach and Duodenum

Andereson[1] lists the various symptoms and Lyon[2] has described the relationship of oral sepsis to the gastro-intestinal tract. It has long been observed that infections in the upper respiratory tract and mouth have a direct etiologic bearing on the development of acute and chronic infections of the gastro-intestinal tract. The removal of foci of infection in this regard is an established procedure but there is a need for a practical attack of the secondary infection in the stomach and duodenum. The following case is an example of what was accomplished by giving hexylresorcinol by mouth.

CASE REPORT

L. Z., a 37-year-old married Jewess was referred to me on September 28, 1938, because of obstructive jaundice. Three years before, she had acute symptoms of gallbladder disease which led to a cholecystectomy. Six weeks after operation she became jaundiced, and upon operation, again was found to have an obstruction of the common bile duct from adhesions. A duodenohepaticostomy was successfully performed and she lost the jaundice and became comfortable for three years when it returned. During the last year she complained of ready fatigue, bloating, vertigo, headache, nightmares, cramps in the toes at night, and drowsiness during the day. She also had occasional attacks of subacute cholangeitis.

Nonsurgical biliary drainage was successful in overcoming cystic duct catarrh and the patient gradually lost the jaundice after a series of drainages plus proper diet and medication. Microscopic examination of the bile and duodenal contents showed many bile stained colonies and myriads of freely motile bacteria. The patient was given sucrets (Sharp and Dohme) chiefly because these lozenges are on the market in a very pleasant candy base and have a definite amount of hexylresorcinol content. The manufacturer states that each lozenge will make a 1:1000 solution of hexylresorcinol when dissolved on the tongue. Ten days after the first administration of sucrets the patient's biliary drainage was free from motile bacteria. During the next six months of observation and treatment no motile bacteria were recovered and she had only three mild attacks of cholangeitis and no jaundice. The patient has gained 11 pounds and is able to do her housework.—Augustus A. Hall, M.D., Columbus, Ohio.

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The discovery of popular education as an instrument in preventative medicine, made by the pioneers in the tuberculosis movement, has proved almost as far-reaching in its results as the discovery of the germ theory of disease 30 years before.—Winslow, C.-E. A., The Evolution and Significance of the Modern Public Health Campaign, Yale Press, 1923.

Case History Presenting Clinical Problems

Man, 45, First Admitted Because of Weakness, Tiredness and Shortness of Breath

HARRY L. REINHART, M. D.

THE patient was a 45-year-old white man when first admitted to the University Hospital, because of weakness, tiredness and shortness of breath. The following observations extend over a period of seven years, and 24 periods of hospitalization.

For two years prior to his first admission he experienced progressively increasing weakness, dyspnea and severe frontal headache. He became unable to work and a blood count revealed 700,000 per cmm. of red blood cells. He was given two blood transfusions and referred to the hematological clinic.

In addition to the usual childhood diseases, he had diphtheria and yellow jaundice. In 1912 he had gonorrhea, and a resultant bilateral testicular atrophy. He operated a store handling confections, wall paper and paint. He had been in close contact over a prolonged period with a large amount of cheap green wall paper.

On physical examination at the time of his first admission, the patient was a "fleshy" white man with poor muscle tone, lemon yellow colored skin and generalized petechiae. He had puffiness of the lower eye lids, and large red tonsils which had been incompletely removed. The lungs apparently were normal and the heart was small with "tones weak". Both testes were atrophied. The reflexes were normal. The blood picture at that time revealed 1,500,000 R.B.C. per cmm., 3,900 W.B.C. per cmm., 150,000 platelets per cmm., and 3.4 per cent reticulocytes. Differential count: neutrophiles 44 per cent, lymphocytes 51 per cent and monocytes 5 per cent. A diagnosis of hypoplastic anemia was made and the patient underwent a splenectomy following a transfusion of 500 cc. of whole blood. At the time of the splenectomy a sternal biopsy was performed. The spleen weighed 50 grams. Supravital studies revealed normal cytology of the spleen and the bone marrow except for a decrease in megakaryocytes of the bone marrow. Microscopic examination of fixed material revealed a fibrosis of the spleen and little evidence of myeloid activity of the bone marrow. The patient made an uneventful recovery and left the hospital after 33 days with little significant quantitative change in the blood count.

Intermittent episodes of numbness and tingling of the extremities and showers of petechiae occurred during the following two years, after which he was readmitted for a blood transfusion which resulted in a chill and temperature of 103°. After nine months he again received a blood transfusion which resulted in hives, urticaria, and bronchial asthma (no previous history of allergy). During the following six months he received nine transfusions with an occasional chill and febrile reaction. Three months later he was admitted for study and was given repeated transfusions of plasma from a patient with polycythemia vera. This therapy had no effect and was followed by six transfusions from normal donors. His blood count at the time of his discharge showed 4,280,000 R.B.C. per cmm., 3,950 W.B.C. per cmm. and approximately 100,000 platelets per cmm. Differential count: 20 per cent neutrophils, 76 per cent lymphocytes and 4 per cent monocytes. His condition gradually became worse and necessitated more frequent blood transfusions from which he suffered occasional reactions. His clinical course was characterized by minor traumatic injuries and increasing infections more serious and frequent as a result of his hypoplastic anemia. His skin had darkened considerably and a biopsy of the skin revealed a rather marked hemosiderosis.

The symptoms which led to his final admission were bleeding gums, difficulty in swallowing and numerous ecchymotic areas over his body. Repeated blood counts revealed a moderate anemia (3,750,000 R.B.C. per cmm.) leucopenia, neutropenia and thrombocytopenia (45,000 platelets per cmm.). Bone marrow biopsy revealed a hypoplasia of all blood cells. He ran a septic clinical course and expired on the thirty-fourth day.

Dr. B. K. Wiseman:

This case of aplastic anemia presents so many interesting features that it will be necessary to limit the discussion to only a few of the outstanding ones. In every case of this disease it is profitable to review the history for possible etiologic agents. Traditionally, it is customary to classify anemia into two types: the "idiopathic", in which no causative factor can be determined, and the "symptomatic", in which contact with various agents that are destructive to bone marrow are apparent. There is a growing suspicion among many investigators that the cases in the idiopathic group also represent instances in which the aplasia has been induced by contact with incompatible substances. Now arsenic is well known to exert an acutely destructive effect upon the bone marrow. Although the effect may be observed in every individual in which the dosage is pushed to the point of arsenic intoxication, only a few individuals, comprising a small group in which a state of specific hypersensitization exists, will react with small or therepeutic doses. In fact, experience with bone marrow reactions after ingestion of amidopyrin (neutropenia) and sedormid (thrombocytopenia) has made it acutely apparent that extremely small doses of the destructive agent may produce widespread and even fatal effects in patients who possess a special susceptibility to the noxious agent. Since this patient was said to have handled arsenic-containing wall paper, it is more than possible that, possessing a susceptible bone marrow, the previous exposure

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This is the forty-third of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." The cases presented are selected by Dr. Harry L. Reinhart as the most instructive among those discussed at the weekly pathologic conference at Starling Loving Hospital, Ohio State University, Columbus, Ohio.

damaged this tissue to the point where complete failure eventually occurred, giving origin to the physical and hematologic data found upon admission to this hospital.

The next point of more than ordinary interest concerns the note in the physical examination of one of his late admissions in which pigmentation of the skin was noted. A biopsy of the skin at that time revealed deposits of hemosiderin. The association of abnormalities of iron metabolism with aplastic anemia has been commented upon at infrequent intervals in the past. These pigmentary changes are not remarkable when recognition is accorded the fact that hemoglobin is not being synthesized and thus iron metabolism is disarranged. The iron content of the tissues is derived from dietary intake plus that accruing from the destruction of effete red blood cells. In the absence of utilization of this element, increased storage occurs in the form of hemosiderin as the body tends to conserve this metal. When the intake of iron is greatly increased by blood transfusions, as occurred in this patient excessive quantities of this iron-containing pigment are formed and deposited in the tissues, resulting in widespread clinical hemosiderosis. The same event has been reproduced in dogs by Rous even under circumstances of normal iron utilization by greatly increasing the iron intake by repeated blood transfusions.

Viewed from the broader perspective, therefore, it appears probable that the entire clinical course of this patient's illness may have had its inception from the earlier contact with arsenic. With increasing bone marrow failure, aplastic anemia developed. Replacement transfusions increased the iron intake far beyond the possibilities of utilization with resulting storage of hemosiderin and the production of hemosiderosis. It would not be surprising, in the light of the newer concepts of specific tissue hypersensitiveness to chemical substances, if many of the presently termed "idiopathic" acute and specially chronic diseases are later traced to chemical (drug) contacts.

A brief note concerning the treatment employed in this case is suggested by the extraordinary variety of therapeutic measures utilized in the attempt to combat what from the first was recognized as an inevitably fatal disease. No method has yet been discovered that is effective in stimulating the hypoplastic bone marrow to renewed activity in this type of disease. Therapy, therefore, becomes a matter of either: (1) conserving the blood that is being made, or (2) replenishing the deficit in the blood stream by introducing cells from a second, usually normal, individual (transfusion).

In the patient under discussion both of these possible measures were utilized, undoubtedly with a considerable prolongation of life. Since the result of a number of blood examinations showed that the reticulocytes were unusually high for aplastic anemia it was felt that appreciable red cell formation was occurring in the bone marrow and pointed to the desirability of preventing to the utmost the peripheral loss of these cells. Now it is believed that the spleen physiologically removes effete red blood cells, white blood cells and platelets, and probably destroys some of these elements that are still of service to the organism. Conservation to the utmost of the circulating blood elements is, therefore, accomplished by removing the spleen, and in this patient the completion of this surgical procedure was followed by a lessened need for blood transfusions. Replenishing the blood stream by transfused cells is effective only in replacing red blood cells. Deficits in platelets and white cells can not be restored as these are lysed by the recipient blood without delay. Therefore, utilization of the blood from patients with polycythemia vera represents the most effective transfusion material that is available. Since aplastic anemia is a constantly fatal disease, the possible theoretical risk in transmitting a second blood disease to the recipient need not be considered. It will be seen that by these combined measures this patient was kept alive and ambulatory until hemorrhage phenomena appeared. This latter can not at present be successfully combatted.

Dr. H. L. Reinhart:

Anatomic Diagnosis: 1. Hypoplastic bone marrow. 2. Acute septic glomerulonephritis. 3. Hemosiderosis of liver, pancreas, intestines, adrenal glands, kidneys, thyroid, lymph nodes and skin. 4. Secondary thrombocytopenic purpura. 5. Atrophy of testis. 6. Absence of spleen. 7. Chronic adhesive peritonitis.

The late clinical manifestations and necropsy suggest a terminal septicemia which is the usual mode of exitus of patients with chronic hypoplastic anemia. The septicemia often accentuates the hemorrhagic manifestations which may completely overshadow the terminal infection. The terminal septicemia may be an expression of a functionally disturbed and inadequate hematological mechanism, although the cellular elements may not quantitatively reflect this inadequacy.

The differential diagnosis between hemosiderosis and hemochromatosis is often difficult. It would seem advisable for purposes of definition to limit hemochromatosis to the disease characterized by diabetes mellitus, bronzing of the skin, and cirrhosis of the liver, without evidence of hemolytic anemia. The clinical course and necropsy findings in this case by such definition suggest a massive hemosiderosis.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

NATION-WIDE TUBERCULOSIS PROGRAM

THE favorable trend in the tuberculosis death rate throughout the United States is, for the most part, to be ascribed on the one hand to improvement in economic status and better housing and dietary standards, and on the other to a diminishing amount of community infection in consequence of education, case-finding and hospitalization. As these factors are to a considerable extent within our control, there is a prospect of the practical elimination of the disease.

Tuberculosis death rates vary with political subdivisions. Of the states, Arizona leads the list with a rate of 275 per 100,000 while Wyoming has the lowest rate, 18. Because the rate is high among Negroes, the problem of tuberculosis is especially serious in the South. A high prevalence of tuberculosis among Spanish-speaking Americans helps to account for high rates in the Southwestern states. Resort states such as Arizona, New Mexico and Colorado are confronted with a difficult problem because of the migration of health seekers. Standards of living influence tuberculosis and financial resources vary widely among the states. The provision of beds for the tuberculous varies from 2.75 beds for each annual death to 0.20. Nine states make no provision for sanatoria, though five of them subsidize local institutions.

Tuberculosis control in the United States falls short of an attainable goal. Probably further substantial progress will not be accomplished without the inauguration of a uniform and adequate program throughout the country as a whole. Leadership and financial assistance in the solution of the problem should come from the central government, leaving the actual operation of the project to states and localities.

NATIONAL HEALTH PROGRAM

A national health program was presented at the National Health Conference in Washington, July, 1938. The section on the control of tuberculosis recommended case-finding, especially by X-ray examination of contacts of known cases, isolation and treatment of persons with active disease and periodic observation of those with latent or quiescent disease. A draft of a proposed bill to carry out these measures was presented by Homer Folks to the National Tuberculosis Association in February, 1939 and was approved in principle as a working basis for federal provision. The suggestion was that the Surgeon General of the United States Public Health Service be authorized to prescribe the rules and regulations necessary to carry out the plan and that a Division of Tuberculosis Control be established in the Service. The bill suggests for the year ending June 30, 1940, an appropriation of a sum not to exceed $7,750,000; for the year ending June 30, 1941, of a sum not to exceed $33,500,000, for the year ending June 30, 1942, of a sum not to exceed $37,000,000; and for each year thereafter of such sum as may be deemed necessary to carry out the purpose of this act, provided that subsequent to the year 1945 the sum shall not exceed 17,500,000.

The Wagner Bill to be enacted as the National Health Act includes provisions for tuberculosis control much the same in principle as those suggested by the National Tuberculosis Association and in addition requires financial participation by the states and provides for federal and local advisory councils. Moneys are to be alloted on a matching basis, the highest proportion, two-thirds, being applicable to the state with the lowest financial resources, and the lowest, one-third, to the state with the highest financial resources.

ADDITIONAL BEDS NEEDED

In addition to the beds already available for tuberculosis, it is estimated (on the basis of two beds per annual death) that about 40,000 more are needed. The criticism that from 25 per cent to 35 per cent of hospital beds in the United States are unoccupied does not apply to tuberculosis sanatoria, for a census covering 92,339 beds for tuberculosis patients showed 14 per cent vacancies, but a waiting list almost as great. The unequal distribution in patient load indicates regional variation in the pressure for beds. Assuming that the decline of tuberculosis will continue, sanatoria should be so constructed and located that they can be used later for general or other hospital purposes.

In case-finding, the most important method is the X-ray examination of all family contacts of known cases of tuberculosis. The extent of the case-finding problem in any community may be roughly estimated by multiplying the number of discoverable cases, using five cases per death as the number which can be discovered, and multiplying this result by the estimated number of exposed persons, or 2.4 per family.

Persons reported as dying of tuberculosis, patients in tuberculosis sanatoria and those with tuberculosis in the practice of physicians are

among the groups to which recourse may be had in the case-finding program, and each case so located may serve as the starting point for the investigation of family contacts.

MASSACHUSETTS PLAN

The Department of Health of Massachusetts has recently promulgated rules and regulations which, in part, are as follows:

As soon as a diagnosis of tuberculosis has been established, arrangements should be made for the examination, including an X-ray of the chest, of all members of the immediate family and of other persons with whom the patient has been in close contact. If the family cannot afford X-ray examination by a private physician, facilities are available through the various state, county and municipal sanatoria. Persons with suspicious findings and those who have had contact with a tuberculous patient should be kept under medical observation as long as advised by the physician.

Case-finding in school children has been in operation since 1924. The school program suffers from failure to secure parental consent for the investigation of more than 50 to 60 per cent of the children. The advantages of the findings of tuberculosis in school children are twofold—to the affected child and to the community. Yet these advantages are fully realized only when the investigation includes both children and family contacts. In general, little has thus far been done to round out this part of the program and to examine by X-ray the family contacts of the children with the childhood (hilus) as well as the adult type of tuberculosis.

The examination of a larger proportion of the family contacts of tuberculosis patients in the practice of physicians may be promoted by local boards of health through a circular letter to physicians asking for a list of all tuberculous patients under their care during the year, whether or not previously reported, emphasizing the importance of sputum examination in suspicious cases, calling attention to the availability of the State Bacteriological Laboratory or other approved laboratories, noting the importance of the X-ray in the early diagnosis of the disease and listing the facilities in the state for the X-ray examination of patients and contacts unable to pay.

Group investigation in Massachusetts should be extended to include all teachers, medical students, hospital interns and nurses, college students, diabetic patients, and nursemaids and domestic help in homes where there are children. —Frederick T. Lord, M.D., New England Jour. of Med., Vol. 220, No. 25, June 22, 1939.

Symptoms may be a pantomine portrayal dramatizing a scene directed by the psyche.—Fetterman.

Allergic Rhinitis

Symptoms resembling acute rhinitis are particularly common at this time of year, frequently in the morning. Inconvenience resulting thereby is being cussed and discussed among doctors and nurses as their sterile technic in operating rooms is disturbed. Members of the family, from youngest to oldest, are complaining. Hay fever is undoubtedly the basic factor in many instances, but in as many or more it is probably some other allergic phenomenon, especially wherein manifestations are perennial but less definitely seasonal. In the latter group of cases, circumstances commonly lead into unwarranted and ineffective surgical procedures.

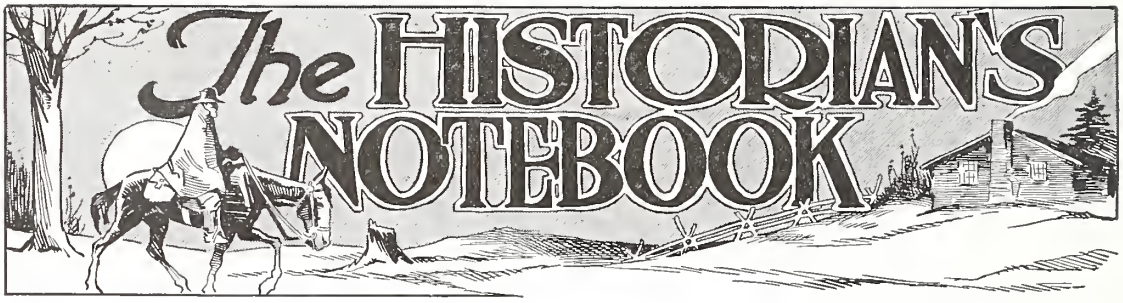
Piness and Miller of Los Angeles have recently commented upon chronic nasal obstruction without sneezing and a stuffy feeling in ears being allergic manifestations. Further, such signs and symptoms going on unrelieved sometimes represent the etiologic background for secondary chronic upper respiratory infections. The latter then, may mask the fundamental situation. Numerous patients with such troubles have been subjected to prolonged sinus draining, nasal spraying, and "cold shots" with ultimate disappointment. In others, the true nature of the situation has been suspected and appropriate diagnostic procedures instituted, with relief upon elimination of offending antigens. One colleague mentions an elderly male patient who reported immediate relief of prostatism simultaneously with disappearance of his rhinitis.

Patients complaining at this time of nose and sinuses should be followed into the fall of the year and possibilities of allergy, other than hay fever, dealt with in persistent cases.—Editorial, Rocky Mountain Med. Jr., Vol. 36, No. 9, Sept., 1939.

Primary Tuberculosis Infection

Primary tuberculous infection of the lungs usually takes place without any obvious disturbance in the health of the child, reports McPherson who followed 850 children in the Brompton Hospital who showed a positive tuberculin test. The lesion is often a small one, and resistance to infection is usually sufficiently good to allow it to heal. The process of healing takes more than one year and the focus is always a potential source of dissemination of the disease during this time. It is probable that the rate of healing increases with improved nourishment and increased sunlight.—A. M. C. MacPherson, M.D., British Jour. Tuber., April, 1939.

A man with paralysis agitans, eighty-six years old, and weighing eighty-seven pounds, had a thirty-six ounce prostate removed suprapubically. He had catheterized himself for twenty-five years. —George W. Stark, Syracuse, New York.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Early History of Medicine in Butler County

Part IV

ALTA HARVEY HEISER

ABOUT 1830, a strong reaction set in against the greatly abused practice of blood letting, the overworked use of calomel and other truly tortuous medical methods. An eastern doctor named Thompson started a new school by advocating care of the stomach, good food and less drastic methods of elimination. Working on the theory that heat is life and cold is death, he stressed the use of vapor baths. His medicines were confined to such botanical remedies as lobelia, yellow root and marigold. These methods appealed to the public and drew many intelligent men to Doctor Thompson's support. In the early stages of the new school, Doctor Thompson's little book of instructions was all there was to go by.

STEAM DOCTORS

When making professional calls, the botanical doctors carried with them apparatus for steaming their patients in tightly closed rooms, thus winning the title of steam doctors.

The attacks from all quarters failed to drive the steam doctors from Hamilton. Indeed, many colleges where this system was taught were established all over the country. The last one, in Chicago, was merged into another medical college in the early 1900's.

In 1832, Dr. G. S. Waugh had a drug store in Rossville. He later moved to High street west of Blair's Hotel, where he "catered to the steam system."

In 1836, Dr. Samuel Latta, who was also a minister, opened a drug store in Dr. R. B. Millikin's old stand at Rossville. He was a botanic doctor and handled the medicines used by that school. He took Dr. Daniel Curtis for a partner, and Doctor Curtis carried on the store after Doctor Latta retired in 1837. As Doctor Symmes had his office at this store under its control by both Latta and Curtis, it may be supposed that he was a steam doctor.

In 1836, also, Doctor Talbott, who carried botanic remedies, opened his office in "the new building near the market house."

FIRST HOSPITAL

During the 1830's Dr. S. H. Witham was practicing medicine in Hamilton, but later moved across to Rossville, where, in 1842, he established the first hospital of which we find mention. He called it an infirmary. He lived on First street (South B) and arranged his home for the special convenience and comfort of the sick. He was a steam doctor, and could treat patients in his infirmary, where he was equipped for that purpose, better than at their private homes.

Doctor Witham's venture is of especial interest since, six years earlier, Doctor McFarland accused him of salivating his patients with calomel. In response to this attack, Doctor Witham made a few caustic comments on his opinion of Doctor McFarland, and then denied using calomel except to spread on bread and butter to kill rats.

Rev. Wilson Thompson is said to have been Hamilton's most ardent steam doctor. He eloquently preached his profession as well as his

The Author

Mrs. Heiser, Hamilton, Ohio, is a member of the Ohio State Archaeological and Historical Society; the Butler County Historical Society; author of a series of historical sketches of Butler County, and reprinted herewith through the courtesy of the Hamilton News-Journal.

religion from the pulpit of the little Baptist church which stood at the southeast corner of Front and South (B and Arch) streets. He called the regular doctors "calomel murderers," not failing to mention their names. Here we find one of the men with "avaricious tendencies," according to a one time president of the Ohio Medical Society. He felt that doctors should stick to their calling. To those who tried to practice medicine and preach the Gospel, he said he would hesitate to trust either his body or his soul. He spoke of a combination which really did exist in Hamilton, as in the case of Doctor Proudfit. This was doctor, carpenter (also coffin maker) and preacher—the doctor "cured" the patient until he died, the carpenter boxed the remains and the preacher launched him into the great beyond.

UNJUST TO WORTHY

This strikes a note of disrespect to the medical profession as well as the ministry, and really is unjust to some of the worthy men who followed several callings, not from greed but in an honest endeavor to make a living during the hard times of pioneer settlement. The ministers and doctors were the natural school teachers in those early days because they were better educated than other business and professional men.

Although we think that the president of the medical society was most unfair in casting his reflections, we can easily understand the thing he tried to point out. This was not only the need of having one thing done well, but also the need of a change from the old-time doctor who combined in himself all the knowledge and all the skill of all the departments of medicine.

Getting back to general conditions during the 1830's, we find a lot of talk about milk sickness, which was supposed to have been caused by the cows eating some herb which poisoned the milk.

At about this time the tomato began to attract attention. When ripe, the fruit was such a lovely red that it was called the love apple. It was also called Jerusalem apple, but was considered deadly poisonous. It was quite the fad for those who could get hold of the fruit to place it under bell glasses on the parlor mantel. Perhaps it took a poison to cure such a deadly disease as cholera, but during those early cholera epidemics the people were told to use the tomato to prevent the disease. They should use it freely at every meal, either raw, cooked or catsuped.

It was predicted that an extract would yet be secured from the tomato to take the place of calomel—that it would become "a powerful instrument in materia medica." As a matter of fact, the tomato was known in Europe in the early sixteenth century. It is native to South America and received its name from the Mexican "tomatl."

The predictions concerning the tomato's medical properties came true to a certain extent. In 1839, the Hamilton Intelligencer advertised for sale at its office "Doctor Miles Compound Extract of Tomato."

The Committee on Medical History and Archives of the Ohio State Archaeological and Historical Society will welcome anything relating to the practice of medicine, including dentistry, pharmacy, nursing and like activities, books, reprints, transactions, instruments, prescriptions, account books, saddle bags, instrument cases, diplomas, letters, diaries, genealogies and photographs.

Contributions should be sent to Jonathan Forman, M.D., chairman of the Committee, care of the Ohio State Archaeological and Historical Society, Museum, Ohio State University Campus, North High St., Columbus, Ohio. Such contributions will be properly and permanently preserved in the Museum of the Society.

DR. ELIJAH COLEMAN

The name of Dr. Elijah Coleman is identified with the early history of Ashtabula County, and will be held in grateful remembrance by many who have experienced the benefits of his skill and kindness on the bed of sickness and pain. Dr. Coleman was born at Norton, Suffolk county, Massachusetts, on the 14th day of May, 1782. He read physic and surgery in Castleton, Vermont, with his uncle, Dr. Witherill, since known as one of the Territorial judges of Michigan. Having completed his professional duties he commenced the practice of medicine in the State of Connecticut, but being assured that the west then held out desirable prospects for young men, he decided to trust his chance for fortune in that direction. He arrived in Jefferson, this county, in 1808 or 1809, and commenced his experience of the hardships of frontier life by resuming the practice of medicine among the new settlements in that region. Some idea of the nature of those hardships may be derived from the fact that his ride at the time comprehended the eastern ranges in our county (with the exception of Conneaut and vicinity), and likewise included portions of Erie and Crawford counties, Pennsylvania. In addition to the labors of his profession, he was agent of the late Gideon Granger in completing the first court-house and jail in Jefferson, and performed the duties of postmaster, justice of the peace, and township clerk for that township. He sustained the loss of all his effects, together with the mail and township records, in the burning of the Caldwell buildings in Jefferson, in 1811, which accident was caused by the bursting of a barrel of high wines.

In 1812, Dr. Coleman received an appointment of surgeon in the western army, to which he repaired in August of that year; was stationed

first at Cleveland, and afterwards at Camp Avery, on the Huron river, then under the command of General Simon Perkins. In the month of April, 1813, Dr. Coleman left the camp at Huron in company with Titus Hayes, of Wayne, and Captain Burnham, of Kinsman, for Fort Meigs, on the Maumee. During this trip he had two very narrow escapes from capture and death at the hands of the Indians.

Some incidents in Dr. Coleman's life, as furnished by Dr. J. C. Hubbard, and by his daughter, Mrs. Robertson, are as follows:

The pioneer doctors of Ashtabula were subjected to most extraordinary hardships. A large part of this county is flat, with a stiff clay soil, and was heavily timbered; many parts of it were uninviting to the tide of settlers seeking homes in the far west.

Six months of the year many of the roads were almost impassable. As late as the year 1852 the regular stage-coach was abandoned between Ashtabula and Jefferson during the muddy season, and a lumber-wagon was substituted; four horses were required to draw the lighter conveyance. Physicians were obliged to keep in the saddle during the spring and fall months.

The subject of this sketch, Dr. Elijah Coleman, and the late Dr. O. K. Hawley, of Austinburg, rode for the first fifteen years all over the county on horseback by day and by night.

Dr. Coleman was frequently called by night to ride as far as Pierpont through the forest, following the "bridle-paths" as best he could, while hungry wolves were howling about in all directions. These visits were often paid to "newcomers," who had squatted in the woods, and were as poor as can be imagined. The doctor relates that he rarely got anything among them to eat except "johnny-cake," fried salt pork, and "whisky pickles." These disagreeable rides were performed year after year without the expectation of adequate reward, and they deserve to be recorded in justice to the memory of a generous resolute man.

He had a keen appreciation of the humorous. Traveling at one time he was obliged to get his dinner at one of the primitive taverns. When he came to settle his bill they charged him for whisky. He said, "I drank no whisky." The landlord replied, "It makes no difference; it was on the table, you might have had it." He paid his bill, concluding to be even with him at some future time. On his return he called at the same place for dinner. Sitting down at the table, he placed his saddle-bags, containing his medicines, by him. At settling he charged for medicine. "But I had no medicine," says the proprietor. "No matter; it was on the table, you might have had it," the doctor replied.

Dr. Coleman was possessed of sound judgment, and was well up in the practical skill of the profession in his day. He was deliberate and faithful in bestowing his attention on the sick. He never hurried, but stayed long enough to do his work thoroughly in severe cases. He would sometimes spend several days in cases of critical sickness, not seeming to think of fees he might get by going his usual rounds among those of his patients who were not in danger. He was gifted with both wit and hmor in a remarkable degree, and was a good story-teller, which was considered an accomplishment fifty years ago. He delighted many a fireside with quaint stories connected with his calling and his experiences in the army. The doctor was a philosophical practitioner, and though he flourished in a day when it was fashionable to dispense medicine with a lavish hand, he often exposed his faith in the healing power of nature by trying expectant plans of treatment.

In 1811 he was married to Phebe Spencer, only sister of the "Spencer brothers," a woman of more than ordinary intellect, and to whom he owed much of his success in after-life.

Page 119—History of Ashtabula County, Ohio, 1878.

The emperor Kai Kubad was attended by a Byzantine physician named Stephen of Edessa, who also had the task of schooling the young Anushirvan. That sovereign on coming to the throne, chose as his personal physician a Roman named Tribunus whom he valued so highly that, when he negotiated a five-years' truce with Rome, he stipulated that Tribunus was to return to his service. The custom of employing Greek doctors survived the Islamic times, for we find that al-Hajjaj ibn Yusuf, the Arab conqueror of Persia, had attached to him a Greek physician whom the Arab biographers named Thiyazuq (Theodokos). His is the first recorded case of a gastric test meal. For when his master was ill with indigestion, he made him swallow a lump of meat at the end of a string. After half an hour he pulled up the string and found the meat riddled with worms. He thereupon declared the case to be one of cancer of the stomach. And in due time al-Hajjaj died of it.—Cyril Elgood, M.A., D.M., F.R.C.P.; Proc. Royal Soc. Med., Vol. XXXII, No. 9, July, 1939.

Proceedings of Society Needed

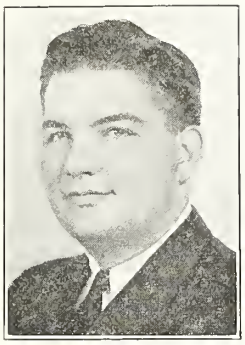
So far as we know, the only complete file of the Transactions of the Ohio State Medical Society is the one the late James Fairchild Baldwin collected and placed in the Ohio State Library. *The Journal* would like very much to complete its file which has the following volumes missing:

All Proceedings prior to the year 1854; Proceedings for the years 1856; 1858; 1860; 1861; 1863 to 1869 inclusive; 1871, and 1883.

Fall Series of Postgraduate Lectures Gets Off To Good Start; Schedules for the Remaining Sessions



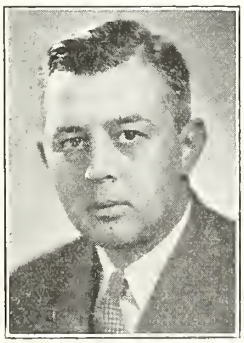
John E. Rauschkolb, M.D.



Marion E. Black, M.D.



E. W. Netherton, M.D.



Glen K. Folger, M.D.

THE Second Course of the Ohio State Medical Association Regional Postgraduate Lectures got off to a flying start, Wednesday evening, September 20, when 125 physicians gathered at the Mansfield-Leland Hotel, Mansfield, for the opening session in Region C.

The meeting was called to order by Dr. Robt. T. Allison, Jr., Akron, a member of the Sub-Committee on Regional Postgraduate Lectures of the State Association, who briefly explained the objectives of the course and urged regular attendance by all physicians in the region. He then turned the meeting over to Dr. Mabel Emery, Mansfield, chairman of the Local Committee on Arrangements, and Dr. Carl R. Damron, Mansfield, who presided.

The speakers were Dr. Harold N. Cole, Cleveland, who discussed "What Shall We Do for the Pregnant Woman with Syphilis?", and Dr. Jonathan Forman, Columbus, whose subject was, "How to Handle the Patient With Asthma". Both addresses being highly practical and informative, were well-received by the audience.

REPORTS LATER ON OTHER REGIONS

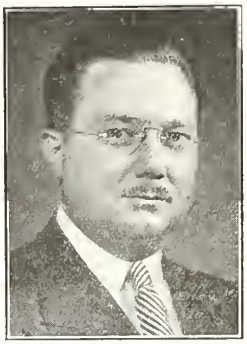
Reports on the opening sessions on September 28 in Findlay, Chillicothe, Cambridge and Troy will appear in the November issue of *The Journal*.

Accompanying this article are photographs of some of the speakers who will appear on the programs of the various regions during October. Pictures of the speakers scheduled for the opening sessions were published in the September issue, together with outlines of the 12 addresses to be made in the six sessions in each region.

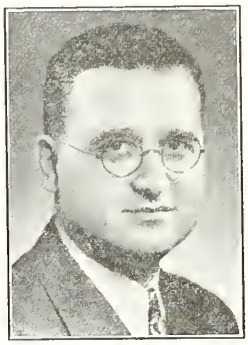
The Committee on Education and its Sub-Committee on Regional Postgraduate Lectures urge all physicians to take advantage of the Association's postgraduate program, which is provided by the Association as one of the benefits of membership.

Physicians who registered at the opening session at Mansfield were:

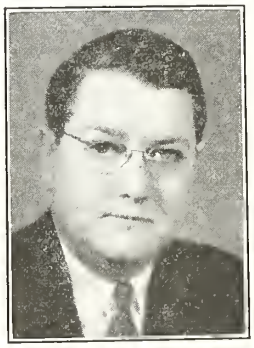
Robt. T. Allison, Jr., Akron; Paul E. Kellogg, L. H. Martin, L. G. Sheets, Ashland; J. W. Boss, Birmingham; F. W. Knittel, Brunswick; W. G. Carlisle, John S. Kiess, Bucyrus; M. F. Axthelm, Caledonia; F. M. Hartsook, E. C. Sherman, Cardington; J. O. Crist, Centerburg; Chas. E. Trimble, Crestline; C. L. Harmer, Danville; George Hardgrove, Doylestown; Ernest V. Ackerman, R. S. Lord, O. W. Rapp, Fredericktown; O. R. Kackley, John M. Kidd, Galion; R. H. Breneman, L. H. Hayhurst, Greenwich; Wm. B. Wild, Holmesville; F. E. Reed, N. E. Woessner, Huron; N. P. Stauffer, Killbuck; C. E. Whitacre, Jos. G. Whitacre, Lodi; Hugh Amos, Albert B. Chapla,



H. M. Clodfelter, M.D.



L. E. Seyler, M.D.



Frank C. Clifford, M.D.



Karl D. Figley, M.D.



Jos. D. Heiman, M.D.



Charles W. Pavey, M.D.



Louis J. Roth, M.D.



Jas. G. Kramer, M.D.

M. E. Kishman, Lorain; G. B. Fuller, N. W. Neptune, Loudonville.

W. D. Abrams, C. H. Bell, A. C. Biddle, R. R. Black, L. D. Bonar, Charles Brown, R. D. Campbell, Robert Crawford, R. I. Curry, Carl Damron, Dalton Deeds, Mabel Emery, G. L. Evans, Lincoln Fisher, Wilfrid M. Gill, John Hattery, F. J. Heringhaus, C. R. Keller, Karl T. Langacher, D. C. Lavender, Frank Maxwell, J. F. Morey, R. V. Myers, L. C. Nigh, K. G. Parker, D. W. Peppard, W. W. Pierce, H. F. Plaut, Myron Reed, R. C. Rehder, O. H. Schettler, Stanley Schiller, Chas. Shafer, L. A. Smith, W. A. Smith, J. A. Spence, J. L. Stevens, Paul Stoodt, D. R. Talbot, F. M. Wadsworth, Harro Woltmann, W. E. Wygant, J. A. Yoder, Mansfield.

C. J. Altmaier, C. D. Baker, Maud L. Bull, H. K. Mouser, Frederick W. Rea, Jack F. Smyth, Marion; Morris Wilderom, Medina; A. J. Earney, Millersburg; Frank H. Sweeney, Mt. Gilead; F. C. Anderson, C. D. Conard, H. Clifford Johnson, James F. Lee, Mt. Vernon; J. D. Bradish, H. A. Erlenbach, New London; R. A. Blackman, R. P. Scott, Norwalk; F. R. Dew, A. C. Siddall, Oberlin; Robt. T. Gray, Prospect; M. E. Stilwill, Rittman; Wm. T. Fenker, H. L. Sowash, Sandusky; Morris M. Malmud, Sharon Center; Emil J. Heinig, Vermillion; H. T. Pease, Louis S. Zwick, Wadsworth; Harlan Dudley, William Klann, Wellington; Harold G. Beeson, Jean S. Douglas, W. F. Mitchell, Wooster; L. E. Cullum, West Salem.

Following is a list of future lectures in each region, with dates, speakers and their subjects:

REGION A—FINDLAY-DEFIANCE

October 12, Defiance—"What Shall We Do for the Pregnant Woman With Syphilis?", Dr. John E. Rauschkolb, Cleveland; "Protecting the Heart of the Patient With High Blood Pressure," Dr. H. M. Clodfelter, Columbus.

October 26, Findlay—"Obstetrics in the Home," Dr. Marion E. Black, Cleveland; "How to Handle the Patient With Asthma," Dr. L. E. Seyler, Dayton.

November 9, Defiance—"Acute Surgical Conditions in Childhood," Dr. M. Tischer Hoerner, Dayton; "Present-Day Viewpoints on the Diagnosis and Treatment of Cancer," Dr. L. A. Pomeroy, Cleveland.

November 21, Findlay—"Convulsions in Childhood", Dr. Elmer G. Horton, Columbus; "Helping the Public Reduce the Mortality of Acute Appendicitis", Dr. R. S. Dinsmore, Cleveland.

December 7, Defiance—"Importance of Routine Rectal Examinations", Dr. Charles E. Howard, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions", Dr. John E. L. Keyes, Cleveland.

REGION B—CHILLICOTHE

October 12—"What Shall We Do for the Pregnant Woman With Syphilis?", Dr. E. W. Netherton, Cleveland; "Protecting the Heart of the Patient With High Blood Pressure," Dr. Frank C. Clifford, Toledo.



L. A. Pomeroy, M.D.



Johnson McGuire, M.D.



Ralph M. Watkins, M.D.



Clayton C. Perry, M.D.



Fred M. Douglass, M.D.



C. C. Sherburne, M.D.



Daniel J. Kindel, M.D.

October 26—"Obstetrics in the Home," Dr. Glen K. Folger, Cleveland; "How to Handle the Patient With Asthma," Dr. Karl D. Figley, Toledo.

November 9—"Acute Surgical Conditions in Childhood," Dr. John W. Holloway, Cleveland; "Present-Day Viewpoints on Diagnosis and Treatment of Cancer," Dr. Mont R. Reid, Cincinnati.

November 21—"Convulsions in Childhood," Dr. Sterling H. Ashmun, Dayton; "Importance of Routine Rectal Examinations," Dr. Clayton C. Perry, Cleveland.

December 7—"The Deformities of Poliomyelitis Must Be Prevented", Dr. Frank E. Stevenson, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions", Dr. Derrick T. Vail, Cincinnati.

REGION C—MANSFIELD

October 4—"Bleeding From the Uterus," Dr. Joseph D. Heiman, Cincinnati; "Present-Day Viewpoints on the Diagnosis and Treatment of Cancer," Dr. L. A. Pomeroy, Cleveland.

October 18—"Obstetrics in the Home," Dr. Charles W. Pavey, Columbus; "Protecting the Heart of the Patient With High Blood Pressure," Dr. Johnson McGuire, Cincinnati.

November 1—"Acute Surgical Conditions in Childhood," Dr. L. L. Bigelow, Columbus; "Importance of Routine Rectal Examinations," Dr. Paul J. Fuzy, Youngstown.

November 15—"The Deformities of Poliomyelitis Must Be Prevented," Dr. Frank E. Stevenson, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions," Dr. Albert D. Frost, Columbus.

December 6—"Helping the Public Reduce the Mortality Rate of Acute Appendicitis," Dr. A. E. Brant, Youngstown; "Convulsions in Childhood," Dr. Edward A. Wagner, Cincinnati.

REGION D—CAMBRIDGE

October 12—"What Shall We Do for the Pregnant Woman With Syphilis?", Dr. Louis J. Roth, Columbus; "Helping the Public Reduce the Mortality of Acute Appendicitis," Dr. Ralph M. Watkins, Cleveland.

October 26—"Convulsions in Childhood," Dr. James G. Kramer, Akron; "Importance of Routine Rectal Examinations," Dr. Clayton C. Perry, Cleveland.

November 9—"Bleeding From the Uterus," Dr. Edwin J. Stedem, Columbus; "The Deformities of Poliomyelitis Must Be Prevented", Dr. John A. Toomey, Cleveland.

November 21—"Obstetrics in the Home," Dr. Charles W. Pavey, Columbus; "How to Handle the Patient With Asthma," Dr. Roger O. Egeberg, Cleveland.

December 7—"Hints to the General Practitioner in the Handling of Acute Eye Conditions," Dr. A. B. Bruner, Cleveland; "Present-Day Viewpoints on the Diagnosis and Treatment of Cancer," Dr. Edgar C. Baker, Youngstown.

REGION E—TROY

October 12—"Bleeding From the Uterus," Dr. Edwin J. Stedem, Columbus; "Helping the Public Reduce the Mortality of Acute Appendicitis," Dr. Fred M. Douglass, Toledo.

October 26—"What Shall We Do for the Pregnant Woman With Syphilis?" Dr. Daniel J. Kindel, Cincinnati; "Protecting the Heart of the Patient With High Blood Pressure," Dr. C. C. Sherburne, Columbus.

November 9—"Obstetrics in the Home," Dr. Ralph W. Eddy, Cincinnati; "How to Handle the Patient With Asthma," Dr. Milton B. Cohen, Cleveland.

November 21—"Acute Surgical Conditions in Childhood," Dr. Lloyd B. Johnston, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions," Dr. A. D. Ruedemann, Cleveland.

December 7—"Convulsions in Childhood," Dr. Robert A. Lyon, Cincinnati; "Importance of Routine Rectal Examinations," Dr. W. W. Green, Toledo.

Two Dangerous Constitutional Amendments On Ballot At Nov. 7 Election; Their Defeat by Voters Imperative

TWO of the most fantastic and ridiculous, yet most serious proposals which have ever been presented to the voters of Ohio will appear on the ballots at the General Election on November 7, barring some unforeseen eleventh-hour legal development which would prevent them from being submitted for popular vote.

These proposals have been termed by the press as the so-called "Bigelow Amendments" because they are being sponsored by a group headed by Herbert S. Bigelow, Cincinnati, for years connected with various reform movements in Ohio.

The Bigelow proposals are being submitted under the provisions of the Ohio Constitution permitting the initiation of constitutional amendments and laws through petitions containing the signatures of a certain number of qualified voters.

As this issue of *The Journal* went to press, approximately 70,000 of the required number of signatures (241,000) on the petitions had been ruled invalid, making it necessary for the proponents of the proposals to obtain supplemental signatures. That the necessary number of additional signatures would be obtained and that the proposals would be placed on the ballot were regarded as foregone conclusions by those in touch with the activities of the Bigelow group.

What Are the Bigelow Proposals?

Proposal No. 1 is a ruinous, economically and socially unsound and synthetic old age pension plan if there ever was one.

It proposes pensions of $50 a month to single persons or $80 a month to married couples who are 60 years of age or more and who are retired from gainful occupation as wage earners, **supplementing all other sources of income.** Note that the question of need is not considered. The proposal specifies two new state-wide taxes to meet such payments, namely: A 2 per cent tax on all land the value of which exceeds $20,000 an acre and a state income tax equal to 25 per cent of the income tax paid to the Federal Government the previous year.

Proposal No. 2, an equally dangerous if not more dangerous proposal, would reduce the number of signatures required to initiate a law to 50,000 and the number to initiate a Constitutional amendment to 100,000. It eliminates the present provision that a certain percentage of signatures must be obtained in at least half of the counties, meaning that the required number might be obtained in one or two large cities. The Constitution now provides that signatures of 10 per cent of the voters scattered over 50 per cent of the counties, with at least 5 per cent of the vote cast in each one of these counties, must be obtained to initiate a Constitutional amendment and at least 6 per cent of the votes scattered over 50 per cent of the counties, with at least 5 per cent of the vote cast in each of these counties, must be obtained to initiate a law.

Texts of the Two Proposals

Complete texts of the two proposals follow:

PROPOSAL NO. 1

BE IT RESOLVED by the people of the State of Ohio that the Constitution of the State of Ohio be amended, by the adoption of Section 13 of Article XII, to read as follows:

Section 13. All citizens of the State of Ohio of the age of 60 years or over who are retired from gainful occupation as wage earners, and who are not under conviction for crime, are guaranteed an income of Fifty ($50) Dollars per month, except that all married couples living together are guaranteed an income of Forty ($40) Dollars a month to each person, which income in either case shall consist of pension payments by the State supplementing all other sources of income. Such state payments shall be made to persons, citizens of the State of Ohio at the time of the adoption of this amendment, or, having become citizens after its adoption, shall have been residents of the State of Ohio for 10 years or such shorter time as may be determined by law. Such payments by the State of Ohio shall be conditioned upon age, residence limitations, income, and non-employment only. Payments of legally established pension claims shall be retroactive to the date of applications therefor, which application may be made subsequent to six months after adoption of this amendment by vote of the people. Persons receiving pension allowances may reside anywhere within the State, but laws may be passed restricting expenditures of such allowances outside the State. Neither ownership of a homestead, occupied by the owner, nor support legally enforceable from relatives shall be deemed income within the meaning of this provision.

All land, the value of which exceeds the rate of Twenty Thousand ($20,000.00) Dollars an acre, is hereby subjected to a special tax of two (2%) per cent, in addition to all levies for general revenue purposes; provided, however, that nothing herein shall be construed to prohibit exemptions from taxation in accordance with the provisions of Article XII, Section 2 of the Constitution. All revenues derived from such special two (2%) per cent tax shall be used for the payment of old age pensions, before revenues from other sources are used for such purpose.

There is hereby imposed a tax on incomes of a rate sufficient to require from each taxpayer one-quarter of the amount of the income tax paid, the preceding year, to the Federal Government. The Governor of the State shall secure from the Federal Government, and supply to all county taxing authorities, information of all income taxes paid to the Federal Government,

from within each county, and county authorities are hereby directed to collect such income taxes with or without enabling legislation. The total amount of the revenue derived from said income tax shall be used exclusively for old age pensions, if required for the full payment of pension claims, but any amount in excess of such requirement shall be available for general revenue purposes.

This amendment shall be effective in accordance with its provisions without enabling legislation, but laws may be passed not inconsistent with its provisions, in furtherance of its purpose, and such laws may be passed either by act of the Legislature or by direct vote of the people using the powers of the initiative and referendum.

All provisions of law or Constitution of the State of Ohio in conflict with any provision of this amendment are hereby amended and superseded with respect to such conflict.

PROPOSAL NO. 2

BE IT RESOLVED by the people of the State of Ohio that the Constitution of the State of Ohio be amended, by the adoption of Section I (h) of Article II, to read as follows:

In the exercise of the powers of the initiative and referendum, after the adoption of this amendment by vote of the people, the signatures of 100,000 of the electors at large shall be sufficient upon a petition to bring to popular vote a constitutional amendment for any purpose whatsoever. Whenever there shall have been filed with the Secretary of State a petition signed by 50,000 of the electors at large, proposing a law, for any purpose whatsoever, the full text of which shall have been set forth in such petition, the Secretary of State without submitting same to the Legislature, shall submit it to the electors for their approval or rejection at the next regular or general election, and if approved by a majority of the electors voting thereon, it shall take effect 30 days after the election at which it was approved. No initiative or referendum petition shall require the designation of ward and precinct of the signer, but the residence address in addition to the township or city shall be sufficient.

Except as modified by this amendment no repeal or change is here authorized of any of the provisions or powers of the initiative and referendum.

This amendment shall be self-enforcing and is hereby declared to be in full effect, without enabling legislation, and all provisions of law or Constitution of the State of Ohio in conflict with any provision of this amendment are hereby amended and superseded with respect to such conflict.

Council Disapproves Both Proposals

Both proposals have been analyzed by The Council of the Ohio State Medical Association. Believing that the overwhelming majority of the physicians of Ohio, as citizens and as professional men, do not favor dangerous and detrimental proposals such as the Bigelow proposals, The Council officially disapproved both measures and pledged the Association to cooperation with the "Ohio Emergency Committee", which is composed of between 60 and 70 state-wide business, industrial, farm, patriotic, civic, professional, welfare and women's organizations and is organized to carry on an educational campaign against the Bigelow proposals. Members of the Association are being informed in various ways about the dangers of the two proposals and will be expected to take an active part locally in educating their friends and acquaintances, as all citizens of Ohio have a very vital stake in seeing that these proposals are DEFEATED at the polls on November 7.

Arguments Against Proposals

Careful reading of the proposals reveals why physicians, as citizens and as doctors, should be opposed to them. Following are some of the important reasons why physicians should vote against them on November 7 and get others to vote against them:

1. Physicians as taxpayers and property owners would be dealt a "knockout" blow through the **new and burdensome taxes** which would be required. Not just two new taxes but **many** types of new taxes would be required to finance the old-age subsidy, statisticians have estimated.

2. Some competent statisticians and economists have estimated that the old-age subsidy proposal would cost between **$200,000,000 and $300,000,000 annually**—perhaps twice that amount after 15 or 20 years.

3. Property owners, both large and small **(practically all physicians)**, in all probability would be assessed an additional **heavy tax on their residences and real estate holdings** as competent legal authorities contend that the term "land" used in Proposal No. 1 means "land and all improvements thereon".

4. If the above is not the case, heavy taxes of different kinds would have to be levied on all citizens to make up the deficit in the old-age subsidy. All consumers, meaning all citizens, would be taxed—even recipients of the subsidy.

5. All present necessary and constructive governmental activities probably would suffer terribly financially—many of them might have to be discontinued. Activities seriously affected would be **schools, law enforcement and public protection agencies, welfare and public health programs, statutory poor relief activities, libraries, etc.** This is one of the worst menaces in the old-age subsidy proposal. The reason for this is that the subsidy would be a first lien (first mortgage) on all state revenue. The state would be forced to pay the old-age subsidy no matter how large, before it could spend a cent for other governmental activities.

6. The State of Colorado has a similar "crackpot" pension plan and the financing of it there has played havoc with regular governmental functions.

7. Fantastic and unsound proposals of this

kind have an injurious effect on sound social security programs. Financing of the present social security program in Ohio would be virtually impossible if the Bigelow proposal is adopted. The chances are that the Federal Government would withdraw its support for Ohio's present old-age assistance program which is based on "need"—a factor totally ignored in the Bigelow proposal.

8. Adoption of Proposal No. 1 would blaze the trail for the presentation of other socialistic measures to the people, such as **compulsory health insurance.** Adoption of Proposal No. 2 would provide an easy method for getting a **compulsory health insurance measure** on the ballot at some future election.

9. Ohio would become a "paradise" for drifters and loafers of the appropriate age from other states who would flock to Ohio, establish citizenship and then be eligible to participate in the subsidy.

10. Of special importance to physicians is the probability that the financial strain which would be placed on the state would bring about a **virtual collapse of present public health services and public welfare activities, including the institutional care of the mentally sick, feeble minded and handicapped.**

11. Adoption of Proposal No. 2 would herald a "field day" for **anti-medical groups and cultists,** cranks, demagogues, fanatics, etc. **Cultists and anti-medical groups who are constantly trying to destroy the Medical Practice Act and obtain special privileges would use the easy method which would be established by Proposal No. 2 to get their destructive proposals on the ballot for popular vote.**

12. Responsibility and activities of the State Legislature would be largely nullified by Proposal No. 2. At each election, dozens of proposed laws would be submitted through initiative petitions. Anyone with an idea, whether good, bad or indifferent, would stand a good chance of getting his "plan" before the people for a vote. Obviously, this would lead to confusion and chaos and destroy orderly procedure in law-making and administration of laws. Representative government would be destroyed. In the final analysis, the public generally would suffer.

Every Thinking Citizen Must Help

Every thinking citizen of Ohio should acquaint himself with the dangers of the Bigelow proposals—this means every physician—and vote against them on Nov. 7. The citizens of Ohio are confronted with a real emergency. A vote against both Bigelow proposals on November 7 will in effect be a vote in favor of sound social security and orderly government.

Special Lecture Course Planned by Cleveland City Hospital Staff

A free lecture course for practicing physicians on recent advances in medicine and surgery will be given during October by Western Reserve University School of Medicine, through the staff of City Hospital, Cleveland. The lectures will be held in the amphitheater of the Central Laboratories, City Hospital, on Mondays, Wednesdays and Fridays from 12 Noon to 1 P.M. during October. A question period will follow from 1 to 1:15 P.M. The complete course follows:

Monday, October 2. "Liver Function Tests", Dr. C. T. Dolezal; "Diseases of the Gallbladder and Bile Ducts", Dr. S. O. Freedlander.

Wednesday, October 4. "Vitamin B Deficiencies and Their Treatment", Dr. P. Gyorgy; "Anemia (Primary and Secondary) and Treatment", Dr. R. W. Heinle.

Friday, October 6. "Treatment of Gonorrhea and Its Complications", Dr. H. R. Trattner; "Treatment of Syphilis", Dr. J. E. Rauschkolb.

Monday, October 9. "Common Fractures and Dislocations", Dr. W. H. McGaw; "Physiotherapy (Physical Medicine) in Surgical Diseases", Dr. W. M. Solomon.

Wednesday, October 11. "The Significance of Systolic Murmurs", Dr. M. L. Siegel; "Treatment of Cardiac Emergencies and Congestive Heart Failure", Dr. R. W. Scott.

Friday, October 13. "X-ray Therapy—Its Indications", Dr. H. Hauser; "Management of the Cancer Patient", Dr. J. H. Lazzari.

Monday, October 16. "Sterility", Dr. J. L. Reycraft; "Surgical Diseases of the Rectum and Anus", Dr. J. V. Seids.

Wednesday, October 18. "Early Pulmonary Tuberculosis", Dr. R. C. McKay; "Common Headache", Dr. L. J. Karnosh.

Monday, October 23. "Infections Of and About the Fingers and Hand", Dr. D. M. Glover; "Office Treatment of Varicose Veins", Dr. L. N. Atlas.

Friday, October 27. "Treatment of Arthritis", Dr. R. M. Stecher; "Treatment of Menopausal Syndrome", Dr. E. E. Beard; "Brain Abscess—Differential Diagnosis", Dr. C. S. Beck.

Monday, October 30. "Differential Diagnosis—Poliomyelitis, Meningitis and Encephalitis", Dr. J. A. Toomey; "The Relative Value of the Kidney Function Tests", Dr. J. M. Hayman.

Dr. Theodore P. Eberhard, New York City, who graduated at Western Reserve University School of Medicine in 1930, has been appointed medical director of the cancer hospital being constructed at the University of Missouri, Columbia, Mo. Dr. Eberhard is a son of Dr. L. R. C. Eberhard, Akron.

Physicians Selected To Serve On Medical Boards Of Review Under Provisions Of New Occupational Disease Law

IN accordance with the provisions of Senate Bill 297, passed at the last session of the Ohio General Assembly, amending Sections 1465-68a and 1465-70 of the Workmen's Compensation Act and establishing a new section—1465-68d pertaining to occupational diseases, a number of Ohio physicians have been appointed to serve on Boards of Review to hear appeals of occupational disease claims which have been denied by the State Industrial Commission.

Section 1465-68d, which deals specifically with the method of appointment of members of the Board of Review, and their duties, reads as follows:

"The dean of the medical school of Ohio State University, the Director of the Department of Health and the Industrial Commission are hereby constituted as an appointing body and empowered to select and establish a list of licensed physicians in good professional standing, who may or may not be residents of the State of Ohio, whom said appointing body shall find to have acquired expert knowledge of occupational diseases by training and experience and to be sufficient in number for the discharge of the duties hereinafter provided. In the actions of said appointing body the Industrial Commission shall have one vote and said dean and said director shall each have one vote. Said appointing body shall certify to the Industrial Commission the names of the persons selected for registration on said list of physicians, from which list shall be selected physicians to serve on the medical boards of review as provided in this section; and the Commission shall thereupon notify such persons of their appointments and upon their respective acceptances of such appointments such appointees shall be registered on said list of physicians.

"In the exercise of their duties, the members of the medical boards of review as herein provided shall have all of the powers accorded to referees by section 1465-47a and may require performance of all things which may be required by the provisions of this section. The fees to be paid to a member of the medical board of review and the expenses which shall be allowed to them shall be such as may be provided by the Industrial Commission and approved by the aforesaid appointing body. The fees of the members of the medical board of review shall be paid from the occupational disease fund. The costs and expenses incurred in the performance of any duty of the medical board of review or any member thereof in respect of any claim shall be paid as part of the expense of the claim if the claim is allowed and otherwise from the general occupational disease fund.

"Any claimant who is not satisfied with the order of the Industrial Commission in an occupational disease claim may file an application for review within thirty days after receiving notice of said order. Upon the filing of such application for review, the aforesaid appointing body shall select three physicians from said list of physicians and such three physicians shall constitute a medical board of review to hear and pass upon the medical questions involved in said claim, and if a majority of such board shall find in favor of the claimant on the medical questions, such findings shall be binding upon the Industrial Commission."

The act became effective May 26. Since that time, the appointing board authorized in Section 1465-68d, consisting of Dr. J. H. J. Upham, Dean of the Ohio State University College of Medicine; Dr. R. H. Markwith, State Director of Health; and the State Industrial Commission, represented by Dr. Sidney McCurdy, Supervisor of the Medical Section, has held several meetings. They have selected the following list of physicians to serve on the Boards of Review:

Internists—Dr. J. Craig Bowman, Upper Sandusky; Dr. Harry V. Paryzek, Cleveland; Dr. George I. Nelson, Columbus; Dr. John L. Stifel, Toledo; Dr. William H. Bunn, Youngstown; Dr. A. B. Brower, Dayton; Dr. A. S. Robinson, Akron.

Chest Specialists—Dr. Paul M. Holmes, Toledo; Dr. Warren C. Breidenbach, Dayton; Dr. C. L. Hyde, East Akron; Dr. J. C. Placak, Cleveland; Dr. John H. Skavlem, Cincinnati.

Dermatologists—Dr. B. F. Barney, Columbus; Dr. E. W. Netherton, Cleveland; Dr. Harry L. Claassen, Cincinnati; Dr. C. L. Baskin, Akron; Dr. A. P. R. James, Toledo.

Neurologists—Dr. C. W. Stone, Cleveland; Dr. George T. Harding, Columbus; Dr. Louis A. Miller, Toledo; Dr. John D. O'Brien, Canton; Dr. H. D. McIntyre, Cincinnati.

Ophthalmologists and Otolaryngologists—Dr. Claude S. Perry, Columbus; Dr. Paul G. Moore, Cleveland; Dr. J. F. Toot, Canton; Dr. H. W. Reid, Cincinnati; Dr. Leonard Nippe, Toledo; Dr. Russel G. Means, Columbus; Dr. H. H. Haggart, Cincinnati; Dr. F. J. Bierkamp, Youngstown.

Roentgenologists—Dr. J. H. Selby, Akron; Dr. C. E. Hufford, Toledo; Dr. Sidney Lange, Cincinnati; Dr. Frank Riebel, Columbus; Dr. Harry W. Burnett, Dayton; Dr. E. P. McNamee, Cleveland.

Pathologists—Dr. Walter M. Simpson, Dayton; Dr. H. L. Reinhart, Columbus; Dr. Harry Goldblatt, Cleveland; Dr. Bernard Steinberg, Toledo; Dr. G. B. Kramer, Youngstown.

Consultant Hygienists—Dr. C. O. Sappington, Chicago, Illinois; Dr. R. A. Kehoe, Cincinnati.

Allergists—Dr. Milton B. Cohen, Cleveland; Dr. Jonathan Forman, Columbus.

Toxicologist—Dr. Clayton S. Smith, Columbus.

Thousands Attending State Fair Given Sound Medical and Health Advice Through State Association's Exhibits

DURING the week of August 26 through September 1 turnstiles at the gates on the Ohio State Fairgrounds clicked 259,448 times as that many Ohioans came to see their state on display. At Hangar 43, the huge metal building just south of the coliseum and the emergency hospital, the fairgoers visited an interesting exhibit on medical care over which hung a large black and silver sign that said "Ohio State Medical Association".

Here the State Fair visitors were told of the dangers involved in trying to diagnose their own ills and prescribe their own treatment. Here also they were told that a periodic health examination is the best precaution against serious trouble. And here they learned of the strides being made in the medicine practiced in Ohio as well as elsewhere.

HAD POPULAR APPEAL

The State Association's exhibit—the first one it has staged at the State Fair—had a decidedly popular appeal. Its location was strategic. It was adjacent to the exhibits of the State Department of Health, and its other neighbors in this same quarter of the building were the Ohio State Dental Society and the Ohio Division of the Women's Field Army of the American Society for the Control of Cancer.

Hence most of the exhibit material at the State Fair which was designed to teach the lessons of disease prevention and detection was grouped together in what might have been known as a "hall of health". Situated well in the central portion of the grounds, it attracted most of the quarter of a million visitors as they streamed from one building to another educating themselves either intentionally or unwittingly for their own benefit.

PLANNED BY NEW BUREAU

The exhibit, planned and executed by the new Bureau of Public Education, included material loaned by the American Medical Association and several features designed in the State Headquarters Office. It contained the three essential factors of light, color, and motion upon which any successful bid for popular attention must be based. The photographs on the next page show several of the features of the Association's exhibit.

Against a background of green and yellow framed by silver ribbon were four large, colored posters which illustrated the following points graphically: the steps leading to good health; the constant study required of a physician to keep up with his science; the importance to the layman of *The Ohio State Medical Journal* because of its service to the family doctor; and the gains which medicine is making toward the defeat of disease and the prolongation of life in Ohio.

The one on the last topic, for example, bore pictures of babies and men to show the increase in life expectancy at birth, and below that were the familiar red thermometer graphs to impress on the visitor the progress made in the last 30 years in Ohio against diphtheria, typhoid, measles, and tuberculosis. In the center its legend said:

"Longer life is medicine's gift to humanity. This has been achieved without regimentation or political control."

POSTERS CAN BE BORROWED

These posters (pictured on the opposite page) are the property of the Bureau of Public Education and may be borrowed by the county societies for fairs or any other occasion on which they may fittingly be shown. Mounted on wood frames, they are 44 inches high by 28 inches wide and are protected with a transparent lacquer coating.

Among the most popular of the exhibit features was a showcase in which certain mechanical aids to the physician were shown as a means of pointing out the improvement in instruments. Beside each device in the case was a printed card which told the fair visitor in simple language how it was used and how it had been improved over its forebear of another day. Only those instruments not likely to incite fears among the visitors were chosen, for psychological reasons.

OLD AND NEW CONTRASTED

An old monoaural wooden stethoscope was displayed beside a handsome new one in one part of the case, while on another shelf a cracked, rusty head-mirror, plumber's candle, and ear speculum were seen in contrast to a shiny new electric otoscope. Forbidding and tortuous-looking old wooden splints of the vintage of 1850 were exhibited beside a new light metal splint. Among the other new instruments shown with cards telling what advances they represented were a sphygmomanometer, a laryngoscope, an instrument sterilizer, a compressed air tourniquet, and a Curvalite with a lucite lens. The showcase was loaned to the Association by the Columbus Showcase Co., the new instruments were borrowed from the Columbus Hospital Supply Co., and the old instruments were obtained



Two features of Ohio State Medical Association Exhibit at recent State Fair.

Above:

Shadow boxes and posters on health examinations and dangers of self-medication.

Below:

Four large, colored posters, prepared by Bureau of Public Education of the State Association.

from the Ohio State Museum and some Columbus physicians.

It can be readily seen from the above description that mothers with their children, curious-minded men, and youths with a mechanical bent spent a lot of time leaning over the showcase. To many it offered a revelation. They learned the history and function of some common instruments which in their doctors' hands had often mystified them, and they undoubtedly wandered away from the exhibit with a saner attitude toward medicine.

MOTION EXHIBITS POPULAR

Kiddies at the exhibit were delighted by the mechanical gadgets and thingumbobs found among the material borrowed from the Committee on Scientific Exhibits of the American Medical Association. There were bells to ring, lights to turn on, and "scrambled answers" to unscramble. And in the process a sound health lesson was learned. The A.M.A. exhibits were on "The Dangers of Self Diagnosis and Self Medication" and "The Importance of Periodic Health Examinations". Large shadow boxes, each pointing a moral, and two ingenious transparent mirrors operated by the visitor himself added to the attractiveness of this part of the exhibit, and of real value were the exposition files on "When to Call the Doctor" and "The Home Medicine Cabinet". Many a housewife spent time thumbing through them to collect a few helpful hints on the health problems in her own home.

Without some kind of a phenomenal mental yardstick it is impossible to evaluate the effect of the State Association's Fair exhibit on the thousands of people who visited it. It can only be hoped that the lessons taught will stick and the fairgoers will have got a good impression about the medical profession and scientific medicine. Certainly the fundamental points were fixed in the minds of the discerning visitors. Anybody who observed the exhibit material intelligently must have learned that it is folly to jest about a lump in the breast or to ignore a cold, that under certain circumstances it is wisdom to call in the physician as soon as possible, that time-tried family remedies are not always the best remedies, and that vital statistics are witness to medicine's remarkable progress in Ohio.

PLANS FOR NEXT YEAR UNDER WAY

Judging from the questions asked and from the conversation of many persons as they halted in front of the displays, an exhibit at the State Fair is one of the most effective means of stimulating popular thought along the right channels. At any rate this sort of response was encouraging enough to warrant thinking of the 1940 fair. This first exhibit of the new Bureau of Public Education might thus be considered a trial shot. It served as a proving ground to illustrate how the average layman reacts to this kind of medical public education, and it furnished the mistakes and the experience upon which a larger and more effective 1940 exhibit can be built.

With health and health programs the popularly important topics that they are, plans are being made—on the basis of this year's maiden effort—for another successful Ohio State Medical Association exhibit for the Ohio State Fair of 1940.

NORTHWESTERN OHIO MEETING ON OCTOBER 3, NOT OCTOBER 23

Due to a typographical error and faulty proof-reading, The Journal last month stated that the Ninety-Fifth Annual Meeting of the Northwestern Ohio Medical Association would be held at Van Wert on October 23, INSTEAD OF OCTOBER 3, THE CORRECT DATE.

The Journal wishes at this time to apologize to its readers for this mistake and to especially request the officers and program committee of the Northwestern Ohio Medical Association, who have arranged such a fine program and worked so hard to make the October 3 meeting a success, to excuse The Journal for this blunder. Such errors are inexcusable but cannot be avoided occasionally, even in the best of regulated publishing offices.

Remember: The date is October 3 at Van Wert.

Sixth District Holds Social Session

A social meeting of the Sixth Councilor District of the Ohio State Medical Association was held at the Alliance Country Club, Wednesday afternoon, August 30. Following a golf tournament and dinner, the district society had a business session, at which the speakers were: Dr. Wm. M. Skipp, Youngstown, President-Elect of the State Association; Dr. Ralph L. Rutledge, Alliance, Sixth District Councilor, and Dr. C. N. Clark, Canton, president of the Stark County Medical Society. New officers are: Dr. Perry F. King, Alliance, president, and Dr. Guy E. G. Byers, Salem, succeeding Dr. W. A. McConkey, and Dr. John M. Van Dyke, Canton. The next session of the society will be in connection with the Second Annual Postgraduate Day of the Stark County Medical Society at Canton, Wednesday, October 11.

G. H. A., the Federal Government's Socialized Medicine Pet Not So Well, Its Ex-Medical Director Says

WHAT is the present status of Group Health Association, Washington, D. C., the Federal Government's most unique venture in the field of bureaucratic, socialized medicine, the hub around which the Department of Justice's suit against the A.M.A., and the guinea pig for the Wagner Health Bill?

It's in pretty feeble condition, according to Dr. Henry Rolf Brown, erstwhile medical director of the organization.

Why this is the case; why he resigned as medical director; and what undercover tactics were applied to give G.H.A. its beginning are explained by Dr. Brown in the following article under his signature, published in the September, 1939, issue of *Medical Economics:*

WHY I QUIT THE G.H.A.

By HENRY ROLF BROWN, M.D.
Published in Medical Economics

"I WAS the first medical director of the Group Health Association in Washington, whose existence was responsible for one of the most fantastic legal moves ever made by the United States Government: criminal prosecution of the American Medical Association and of some of the most eminent and upright members of the profession.

"The story I am about to tell should be investigated by a Congressional committee, for it relates to the diversion of public funds for purposes unauthorized by Congress. Similar activities have merited the term, 'graft'.

"But the situation involves more than questionable use of public money. It also involves incompetent tinkering with the health of from 1,400 to 3,600 persons, and a high-pressuring of Government employees by methods not far short of outright intimidation.

"The Group Health Association, composed of Government employees in Washington, has been serving as a guinea pig for those members of the Administration who have been behind the so-called National Health Program and the Wagner Health Act. Many of them favor compulsory health insurance, and for awhile their guinea pig was precisely close to being it. But now, after two years, it is not doing so well. It has had to receive monetary transfusions from both the Government and a foundation in order to stay alive. It may not live much longer.

"I assumed the medical directorship of this undertaking with the understanding that it would be a cooperative venture independent of the Government. Instead of a private organization, I found what was, in effect, an adjunct of the Home Owners Loan Corporation, a Federal agency.

"I resigned because lay control invaded the field of medical direction and I could no longer tolerate the irregular way G.H.A. was being handled.

"Shortly before my retirement as chief of the Veterans Bureau tuberculosis hospitals in 1937, I was approached by C. D. Otterson, personnel supervisor of the HOLC. He asked whether I would consider an affiliation with a health association to be organized among the Washington employees of that agency.

"I understood that the idea originated with R. R. Zimmerman, HOLC's director of personnel. The groundwork for the project was said to have been laid by R. V. Rickord of the Twentieth Century Fund. These plans had attracted the interest of HOLC Chairman Fahey and his assistant, Ormond A. Loomis. (Mr. Fahey is now head of the Filene foundation also).

"Messers. Loomis and Zimmerman were in constant communication with the Social Security Board. The general impression was that the White House and Miss Josephine Roche were interested in the project. Subsequent events confirmed that impression.

"After several conferences with HOLC officials, I accepted their offer to become medical director of the Group Health Association. My new duties entailed organization of the staff, both lay and professional, and securing necessary equipment for the contemplated clinic.

"For the medical staff I applied to numerous doctors of my acquaintance and to medical exchanges. A number of high class men seemed willing to accept positions with Group Health. They visited Washington and went over the situation, whereupon most of them declined my

offers on the ground that they did not believe the organization could be an economic success. I do not recall that any of these prospects said that they had been approached by the A.M.A. or its representatives.

"W. F. Penniman, an assistant to the general manager of HOLC became the first G.H.A. president. R. T. Berry, another member of HOLC's higher bureaucracy, became secretary of the board of trustees. And while Mr. Zimmerman was not a trustee, he and Mr. Loomis were the moving spirits in the organization. Any policy they agreed upon was certain of adoption by the board, which seemed to be mere putty in their hands.

"Publicity and promotion of the enterprise were handled by the HOLC's publicity man, Howard Acton, and by his assistant, Mr. Vickery. Both devoted considerable time—their own and the Government's—to this work. The membership campaign was in charge of Mr. Penniman.

"Even after an intensive drive, it was difficult to get employees to sign up voluntarily. Mr. Penniman advised his solicitors almost daily not to be coercive among HOLC employees. Although they were to say that membership was purely voluntary, the solicitors were to make it understood that it was highly desirable that they join up. Many employees did so because they felt that if they did not they would lose their jobs. The final drive resulted in about 70 per cent of them becoming members. Monthly dues at that time were $2.20 for individual and $3.30 for family memberships, regardless of the number of dependents.

"This supposedly cooperative, self-supporting organization had the backing of Federal funds. A $40,000 'loan' from the HOLC financed its beginnings.

"And that was not all. Group Health was given the privilege of the Government discount, when making purchases! Buying was done through the HOLC's purchasing division! Telegrams, clerk hire, and long-distance telephone items were charged to the HOLC! Installation of X-ray apparatus, reconstruction, and repair work were performed by HOLC electricians and carpenters on Government time and using Government materials! All the initial printed forms used by Group Health—about $600 worth—were done by the HOLC! Some Group Health correspondence even went through the mail under Government frank!

"During the time I was at Group Health, office equipment, too, came from the HOLC. Anyone who has been in Government service will realize the irregularity of this procedure.

"Yet even with this clandestine assistance, Group Health has not paid its way.

"Early in my service with the G.H.A., I suggested that necessary arrangements should be made for the use of local hospitals. I discussed this matter with the superintendent of Emergency Hospital, who asked me to submit a letter requesting hospital facilities, which he would take up with his board of trustees. I reported to Messers. Zimmerman and Penniman, who advised me to drop the matter, saying that they would undertake these negotiations themselves. After these laymen entered the situation, the hospitals denied admission to our surgeon and physicians. They said they did not regard our surgeon as fully qualified.

"At no time did the local medical association bring pressure to bear upon me. I was in contact with many District of Columbia physicians. None of them ever suggested that I resign, but some did try to convince me of the economic instability of the enterprise.

"I had realized this from the beginning, and had been hopeful of convincing members of the Group Health board to effect a sounder basis of operation. But to no avail.

"When I began Group Health duties, I had complete charge of the medical department. Business and financial matters were in the hands of the secretary, Mr. Berry, in cooperation with the medical director. But gradually Mr. Berry and the medical director were shorn of all authority and became rubber-stamps under the direction of lay officials. The latter made all rules and fixed all policies. Staff doctors were merely hired hands.

"Early in the game, Drs. Allan E. Lee and Stephen Hulbert resigned. It was given out at the time that they quit because of medical association pressure, but I know to the contrary. These physicians resigned because they were not permitted to treat their own private patients and because by that time they did not believe that Group Health would succeed.

"It was physically impossible for the staff doctors to give time enough to make careful diagnosis or to give proper medical service. Each of them had between 40 and 60 patients a day. Group Health clients had no choice; physicians and specialists were arbitrarily assigned to them. Patients were visited at their homes by clinic doctors, all of whom were required to be on call at night after long days in the clinic.

"Dr. Richard H. Price resigned from the organization of this inadequate service, but he returned when promised an increase in salary and more assistance. However, the promise of a larger staff has not been fulfilled because of dwindling membership and funds. When I left the organization, Group Health had about 3,600 members. Today it has between 1,200 and 1,400. Dues have been increased several times. Group Health

is running further and further into the red, and its demise may not be long delayed.

"One of its supporters, T. Swann Harding, has already pronounced its obituary and cause of death. Writing in the July 3 issue of *The Washington Post*, he said:

"'If the Group Health Association fails, we shall have only ourselves to blame. The medical societies will not have licked us. We shall have licked ourselves. We shall have proved too reactionary and too stupid to have made full use of our medical opportunities.'

"This 'noble experiment' in Washington was used as a stepping stone to regimented medicine. It had the benefit of much irregularly diverted Government property and a Government 'loan'—all at the expense of the American taxpayer. Even then it operated in the red.

"Out of it came Assistant Attorney General Thurman Arnold's weird anti-trust suit against the American Medical Association. Fostered by supporters of the National Health Program and the Wagner Health Bill, its record convicts both the program and the bill of impracticability."

Interstate Postgraduate Assembly Will Meet Oct. 30-Nov. 3 in Chicago

This year's International Assembly of the Inter-State Postgraduate Medical Association of North America will be held in the Palmer House, Chicago, Illinois, October 30, 31, November 1, 2 and 3.

The officers of the Association and those of the Chicago Medical Society and the State Medical Society of Illinois, have extended a cordial invitation to all members of the profession in good standing in the State of Ohio to attend the Assembly.

The members of the profession are urged to bring their ladies with them as an excellent program is being arranged for their benefit by the Ladies' Committee. Chicago has many places of interest, which will make this year's program especially attractive to them.

The stage is being set for an intensive week of postgraduate medical instruction, meeting the requirements of the general practitioner, as well as the specialist.

It consists of about 80 clinics and addresses, covering the latest advancements in medical science. The contributors have been selected from among outstanding teachers and clinicians. The registration fee is $5.00.

Pre-Assembly and post-assembly clinics will be conducted in the Chicago hospitals the Saturdays previous and following the Assembly for visiting members of the profession.

The list of teachers and clinicians who are to take part on the program appears on page 1145 of this issue of *The Journal*.

Chicago Medical Society Adopts a Hospital Insurance Plan for Members

The Chicago Medical Society has adopted a complete and unrestricted insurance plan for hospital and sanatorium care for its members. After two years of study, conducted by an employment insurance analyst, the society concluded that only cash indemnity plans should be considered.

The plan provides for private room service on a cash indemnity basis, allowing $6 a day for either hospital or sanatorium confinement for a period of ninety-one days for each claim, plus an additional payment, up to $30, for incidental expenses in connection therewith, such as operating room, anesthesia, laboratory, X-ray and bulance charges. The number of claims in any one year for members under the age of 60 is not limited. Members of 60 years or older are provided ninety-one days at $6 a day plus $30 for incidental expenses in any one year. This is an unusual provision, since most plans limit the number of days of hospitalization in any one year to all members of the group. There are no restrictions as to diseases for which provision is made nor is there any physical examination required for the members of the original group. Later such an examination will be required. Any reputable hospital or sanatorium anywhere may be selected, and the insurance continues to the age of 70 for an annual premium of $10. The plan is underwritten by an established life insurance company.

A supplemental plan, which will provide hospital and sanatorium benefits for the wives and children of the members of the Chicago Medical Society plan, is in preparation. Thus another of the leading medical organizations places its approval on the principle of insurance against the costs of illness, but at the same time affirms its conviction that voluntary action and cash indemnity are vital in plans that conform to the democratic concept.—*The Journal of the A.M.A.*, September 16, 1939.

Fee Schedule Revised

A revision of the fee schedule for removal of simple imbedded foreign bodies from the cornea and sclera by general practitioners has been announced by the State Industrial Commission, effective September 7. For many years the fee for this procedure was $2, if done by a general practitioner; and $3, if done by an eye specialist. As revised, the fee will be $3 for either a physician in general practice or a specialist. The fee for removal of a foreign body attached to the cornea or sclera, but not imbedded, remains at $2, whether done by a general practitioner or a specialist. Fees allowed eye specialists for difficult or complicated cases are not changed.

In Our Opinion: Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Obviously, the public mind is concentrated on developments in Europe. Therein lies a real danger, in our opinion. History records that in times of international stress and turmoil, domestic developments go unheeded and that then is the time when reformers and fanatics get in their best licks.

Problems at Home Must Not be Overlooked During War Emergency

This fact reveals why the editorial by Dr. W. W. Green, in a recent issue of *The Bulletin* of the Toledo Academy of Medicine, is so timely and why its warnings should be heeded by the medical profession. The editorial was as follows:

"With the European crisis at hand, it is difficult to direct our attention to matters of local concern. Nevertheless, it would serve us well to turn from the bewildering patterns of power politics and consider the lesser events that concern us as individuals and as an Academy. We have no way of influencing the destiny of nations but have some control over the factors regulating the practice of medicine.

"Although geographically remote, there may be a close connection between Danzig and our own political scene. It was during the last World War that one of the most effective political coups in the history of our country was consummated. The eighteenth amendment was passed as the result of persistent effort by a highly organized minority at a time when the attention of the country was diverted by our problems abroad. A close parallel exists between the factors producing Prohibition and those now favoring some form of socialized medicine. Both were sponsored by a highly organized political minority. This pressure group was composed of wily politicians, zealots, and a small percentage of sincere, intelligent and socially conscious individuals. The art of propaganda, exceedingly useful in 1918, has been so developed that it is now a powerful political weapon. A European conflict would be all that would be needed to divert public attention from matters of local interest. It would be then that the advocates of socialized medicine would really start to work.

"The Wagner Act, providing the opening wedge for state medicine, is not dead. Some of its features are laudable and would be eagerly accepted by the profession. The A.M.A., in addition to objecting to its bad features, must offer a constructive program in its place. The factor preventing the Wagner Act from being brought to vote before Congress was the antagonism of the economy minded legislators. With a European situation involving us either directly or indirectly, with re-election in the offing, is it reasonable to assume that these same legislators would continue to adhere so strictly to their new-found principles of economy? It is our guess that they will take such a stand only if it is politically expedient. It is not enough for us to offer a plan to replace the Wagner Act, retaining its benefits and rejecting the factors that lead to socialized medicine. We must go a step farther and establish such a strong demand for sane legislation that the politicians can not help but heed.

"It is not too fantastic to suppose that if we were drawn into the European conflict, socialized medicine would almost automatically become an established fact. Following the recent trends in our federal government in the past few years, it is only reasonable to assume that we would enter a period of governmental dictatorship far surpassing that in effect in 1918. It would only take this move to set into motion the already planned machinery of state medicine.

"As we sit back and contemplate the situation in Europe, we should at the same time give a little thought to matters here at home. As unbelievable as it seemed in 1916, Prohibition became a law through the well-timed efforts of a minority group. With the same factors at work, could not the 1939 fantasy of socialized medicine become a reality in 1941?"

Fortune never helps the man whose courage fails.—Sophocles.

Medicine has done many, many things for the public good which the people do not know about or understand. This is unfortunate at this time when so many persons are skeptical of their fellow-men and distrust is being bred by those who want to reform the world. How is the medical profession going to combat those who are sowing the seeds of discontent and in a subtle manner attempting to undermine public confidence in the profession? There is only one sound method: By giving to the public the facts about the profession and about medical service.

Personal Touch In Public Relations Is Essential Factor

Who shall be the purveyor of such facts? In our opinion the answer is obvious. Not some medical society or group; not the "big names" in medicine; not the professional spell-binder, but the private practitioner here, there and everywhere—the chap in whom the people of his community have confidence and whose ability and honesty is recognized by his fellow citizens.

In our opinion the point was aptly expressed recently by one Ohio physician who has taken a progressive attitude on public relations and has had his ear to the ground. Quoting:

"There are altogether too many physicians writing their own biography and giving their own opinion about the practice of medicine and what the people should expect from it. All of this helps some but in many instances likewise hinders. The public must be told by down-the-

line men whom the people know can back it up with successful experience and action. For instance, the public needs to be told honestly just what the situation is in their community about the adequacy of the medical care now being offered.

"After all public confidence is individual and personal. The voice of the American Medical Association or the Ohio State Medical Association can not do the job effectively. It can plan and build up opportunities but the getting across to the people of Ohio a clear and honest picture of what Medicine is and is not must be the work of local physicians as individuals for after all confidence is individual and personal as already stated. We feel confidence and beget confidence as individual beings, not as associations or groups. We have confidence in someone we respect and know. In the final analysis it is not so much **what** we say that breeds confidence as **who** says it. If we believe in a person we will believe what he says and if we do not have confidence in him we will doubt him even if he says that two and two are four.

"To get out of our present difficulties, the medical profession must no longer be impersonal. For this reason we cannot expect our medical societies alone to carry the responsibilities. This does not mean that there is not work for the Bureau of Public Education of the State Association and for the public education committee which every local medical society should have. On the contrary it means plenty of work for them but supplemented with active interest and work on the part of each individual physician. All that our societies can do is to lay the groundwork and provide the ammunition. Personal effort is really what will count in the long run.

"Every member of the Ohio State Medical Association has the respect of a goodly number of his fellow citizens. No other group of citizens has so much potential power in this direction. When these men talk to their friends and patients as fellow citizens and neighbors what they have to say will be given more consideration and have more influence than all the pronouncements of the A.M.A. and Ohio State Medical Association combined.

"Those of us who have felt the need for a long time for a Bureau of Public Education in our state society are hopeful that the bureau as it gathers momentum will be able to provide the membership with much data for enlightening the public about our position and about the many things which are threatening public health through the efforts being made to change the American way of medical practice. As this information is released it must be given a personal touch through the medium of interviews or it must be said locally by local physicians. The day when we could turn over this job to the medical society, pay our dues and relax is gone. In addition to backing the efforts of our local and state medical societies, each of us must not overlook the job which we as an individual must do as we enter the social and civic life of our community. It is our duty to let plain John Citizen know how the aims of the theorists planning to make over the practice of medicine will affect him."

Above in a nut shell are some excellent suggestions for a real personal public relations program. It should not be difficult for every physician to realize the role which he must take.

Right and Wrong Ways of Trying To Satisfy Patients

Pleasing the patient is an essential to the successful practice of medicine. Every physician, quite naturally, wants his patients satisfied. However, there are a few pitfalls which he must keep in mind and try to avoid.

Occasionally, there is the physician who fails to take public temperament into account. He conducts his practice in a manner which does anything but stimulate a closer personal relationship with his patients—one of the basic factors in maintaining a satisfied clientele. For example, there is the physician who overdoes it in trying to streamline his practice, thereby aping, perhaps unwittingly, the tactics of bureaucracy which are none too popular with a large portion of the American public despite the fact that they have had to stand for it in large doses during recent years of emergency. The idea that the patient must take what the physician has to offer or lump it, may be trumps in a totalitarian state but in our opinion it won't work here. Mechanized procedure may work in the factory but it won't get very far in dealing with the sick. An aloof, impersonal attitude on the part of the physician may be necessary in the laboratory but it has no place in bedside medicine.

On the other hand, we find the physician who is so slipshod in his approach and so informal that immediately the patient gets the impression that methods based upon such unbusiness-like features cannot possibly be of any concrete benefit.

In a third classification, there is the physician who is overindulgent; who is so anxious to please his patients that he permits them to run the show, leading to abuses of one kind or another. We find examples of this in the business world. Witness the department store which is so anxious to please the public that it offers all kinds of easy credit plans and lets the public get away with murder when it comes to paying the bill. The result of this has raised the mark-up on merchandise some 12 points in the last few years and many families have mortgaged themselves to the hilt simply because "it was so easy".

Physicians are confronted with somewhat the same problem. They must keep office overhead at a minimum and collections at a maximum because of charity mark-offs. If the physician yields to the demands of his patients for unnecessary services and frills when his better judgment dictates against them, he simply is working against the interests of the patient as well as his own. Ultimate costs always are reflected in initial costs.

Here we have a rather vicious circle which has been largely responsible for the present con-

troversy about the costs of medical care. The solution lies with both the patient and the physician. The physician can do much to ease the situation by attempting to show his clientele the difference between necessary medical service and extravagant medical service. If he succeeds in doing this, he has taken a big step toward assuring himself of a pleased and satisfied clientele.

Every physician is his own public relations counsel, and every contact he makes with his patients and friends hinders or advances the position of himself and his colleagues in the hearts and minds of the public.—Bulletin of the Jackson County Medical Society, Kansas City, Mo.

Mighty Tricky Fellows, These Braintrusters!

Subtle chaps, these braintrusters! Tenacious, too, one might observe.

Example No. 1—On September 9, the United States Department of Justice filed in the United States Supreme Court a petition for a review of the decision by Justice Proctor of the United States District Court for the District of Columbia, dismissing the indictment of the American Medical Association and others under the Sherman Antitrust Act. (See page 990, September, 1939, issue of *The Journal* for Justice Proctor's decision). In jumping directly into the Supreme Court, the department apparently is seeking to avoid a decision by the U. S. Circuit Court of Appeals for the District of Columbia to which an appeal would ordinarily lie and to which the department already had appealed. In guessing at the reasoning behind this move, one might observe that perhaps the department feared another drubbing by the lower courts which, of course, would weaken its case before the Supreme Court or that perhaps the department anticipates that the Supreme Court may refuse to take jurisdiction because of this unusual procedure which will retard final settlement of the case and leave a millstone hanging about the necks of the medical profession for that much longer time.

Example No. 2—Partially blocked in one direction in their campaign of retaliation against the medical profession for opposing streamline medical and public health proposals by Justice Proctor's decision, the braintrusters apparently are seeking other avenues of attack. The following quotation from "The Periscope" of the September 4, 1939, issue of *Newsweek* is enlightening if nothing else: "There's a squabble within the Federal Trade Commission over a thus far unpublicized plan to start proceedings against the American Medical Association. Grounds for the action would be the evidence which investigators have dug up purporting to show that the A.M.A. doesn't fully investigate products which it 'approves' for advertising purposes. The hitch is that some commission members would rather skip the matter, thinking formal action would rile too many physicians upon whose cooperation and expert testimony the commission must rely in countless drug cases."

As pointed out in these columns not long ago: "It looks like a tough Winter so we'd best prepare while the preparing's good".

In spite of the fact that its material rewards are not great, medicine today attracts and holds superior young men and women; it would not do so if they felt that their future depended on governmental favor rather than upon professional attainments. Experience teaches that there is far more reason to place confidence in the high purposes and altruism of the physicians than in the tall talk of politicians or the wishful thinking of professional reformers.—Chicago Daily Tribune.

Are You a Good Committeman or Are You a Poor One?

When one compares the activities of the modern alert medical society with those of the average medical society of not so many years ago, one is struck with the amazing changes which have taken place. Medical societies today are confronted with a multiplicity of problems whereas those of a few decades ago had but several with which to wrestle. Obviously, time has marched on and problems have multiplied.

What we had in mind in making this observation is to point out how important it is for all of the medical societies of today to operate on as efficient a basis as possible. One of the primary factors in organization efficiency is the organization of a sufficient number of active committees —not too many but enough to carry on properly the activities of the society.

Naturally, this leads to the point that poor committees are worse than none and that lazy committee members are liabilities rather than assets. Make an inventory of your own county medical society. Some of your society's committees are functioning, no doubt; some are asleep at the switch. It all boils down to personnel of those committees.

If you are on a committee in your county medical society, we hope that you will analyze your interest and cooperation in committee affairs in the light of the following observations published edtorially in *The Milwaukee Medical Times* and

go forth and mend your ways—if mending seems to you to be necessary:

"Serving on a committee of a county medical society is a task which should be taken seriously or not accepted at all.

"Each committee member is under an obligation to serve faithfully and contribute something of real worth to his organization. Many do not realize this and are perfectly willing to let one or two members on the committee do all the planning and the work that is necessary. Are you that kind of a committeeman?

"It might be interesting to consider the ideal member of a committee. What are his qualifications and how does he meet his responsibilities?

"First, he should have the interest of the medical profession at heart.

"Second, he will give thought and study to the subjects which come up before the committee and will not just be one of those present. No committee can do much on behalf of the profession which is not made up of members genuinely interested in the tasks to which they have been assigned and willing to give the time necessary to put through the plans evolved.

"Third, he will make it a point to be on hand for all meetings unless his professional duties require him elsewhere. Nothing is so demoralizing to a committee as to have two or three out of 10 or 15 members present. There is no quorum; therefore, no action can be taken. Those on hand become discouraged and unless interest is somehow stimulated they also drop out and the committee becomes dormant.

"Fourth, he will not allow one or two members to assume the entire burden for developing plans, but will contribute ideas of his own.

"Committees can do much to improve the efficiency of medical societies because most of the planning is in their hands. Their personnel, however, should be carefully selected from among those men who will meet the qualifications here described."

For the physician there is only one rule: Put yourself in the patient's place.—Lord Lister.

Some "Don'ts" Which Apply To Handling of Fracture Cases

While the proportion of malpractice suits in Ohio is relatively small compared to the number in some other states, one bobs up now and then—and the chances are better than even that it will result from the treatment of a fracture case. The Medical Advisory Committee of the Minnesota State Medical Association recently published "Ten Don'ts in Fracture Cases". Strict adherence to the committee's admonitions would certainly avoid malpractice litigation and its inconvenience. Here is that committee's advice:

"1. Do not attempt to treat a sprain or fracture without an X-ray examination.

"2. Do not reduce a fracture with misplacement without some type of an anesthetic.

"3. Do not reduce a fracture without competent assistance.

"4. Do not fail to tell the patient the condition you are trying to overcome.

"5. Do not apply a cast or splint without advising the patient of the symptoms of impaired circulation.

"6. Do not fail to advise and insist on hospital care if you deem it necessary.

"7. Do not neglect to see the patient often enough. Better many times too many than once too few.

"8. Do not forget to advise the patient of the damage to soft parts and the possible result of this damage to function.

"9. Do not let him forget that complete cooperation is expected by you during treatment and that only through such cooperation can best results be obtained.

"10. Do not fail to make detailed records which should include history of accident, physical and laboratory findings—those present at time of examination and treatments—X-ray findings, dates of services rendered, splints and other materials used, advice given patient and information as to who may have heard this conversation. In fact, do not think any incident or happening too insignificant to warrant recording. Then file them carefully and permanently".

There are factors that destroy the public belief in the hospital even more swiftly than it is built. The manifestation of a tendency to practice sharp commercialism is one of the most certain destroyers of public confidence.—Modern Hospital.

Socializers Should Please Take Notice, But They Won't

We couldn't refrain from chuckling a little when we read the following International News Service story, under a Denver dateline, captioned, "Hungarian Claims U. S. Is Leading World in Science—Says Social and Medical Pursuits Far Ahead". To quote:

"The United States leads the world in social and medical science in the opinion of Dr. Ladislaw Benedek of Budapest, Hungary, universally known scientist and neurologist.

"Dr. Benedek expressed his amazed approval of American health methods on a visit to Denver during a cross-country tour of the nation's scientific and artistic wonders. He was accompanied on the trip by his wife, the beautiful Madame Irene de Zilahy, ranking European motion picture actress.

"I had not imagined such vast preparations for the study and care of the health of the people", Dr. Benedek said. 'Public and private clinics leave me amazed. If America is known best as a material nation—and surely this is no reproach when one beholds its great cities with all they stand for—in medical and social sciences, it leads the world.'

"Dr. Benedek addressed clinics on nervous and mental diseases in New York, Boston and Philadelphia. Although he felt little hesitation in doing this, he said he stood 'in humble reverence before American surgeons operating on brain diseases'.

"'You're unequal', he asserted.

Dr. Benedek is vice president of the International Neurological Congress."

All of which is right refreshing. Those who

would discard the American system of medical practice and substitute a plan based on European methods should take notice, but they won't.

In recent time . . . it has become widely recognized that it is a duty of the medical profession to present to the public a clear and comprehensive review from time to time of the accomplishments of scientific medicine and an explanation of what conscientious and upright physicians are doing to promote the health of individuals and the community.—Northwest Medicine.

A Slant on Use of X-Ray in General Practice of Medicine

Some readers of *The Journal* may disagree with the following editorial in the Columbus Academy of Medicine Bulletin by C. J. D. but in our opinion it raises a question which needs airing. Certainly no harm can come from discussions of this character and even if there is disagreement, thought-provoking comments about some of the inner problems in the practice of medicine always are stimulating and beneficial.

"It is quite common these days to find X-ray facilities in many general practitioners' offices. Indeed, the manufacturers of X-ray equipment are only too glad to install a machine and instruct the buyer or his assistant in its operation. As a matter of fact, most anyone is eligible, as evidenced by the advertising of Osteopaths and Chiropractors. Trained Roentgenologists view this with alarm and justly so.

"Fluoroscopy is one thing and actual film work another. Either procedure not intelligently handled may produce severe anemia, sterility, burns and even cancer in the operator if he is not adequately trained. The judicious use of the fluoroscope with low amperage over short periods of time is relatively harmless, but so often one sees an operator turn up the power in order to see better, without regard for time or health. It is an exceedingly dangerous practice even for physicians, let alone unskilled operators.

"From the patient's point of view, it is unfair for amateur Radiologists to attempt sinus, gall bladder, gastro-intestinal and bone plates, both because of the usual poor film and likewise the general practitiones's inability to interpret the film. The taking of good pictures requires long training and the interpretation demands adequate instruction and experience.

"In our opinion, a fluoroscope is a vital adjunct to the practitioner in taking a look at the lung or heart detail as an aid to diagnosis. Even here borderline cases require good films for study. The average practitioner has neither time nor equipment to take good pictures, and to infer that he is not qualified to interpret the film unless he has had postgraduate training is merely stating a fact.

"There always will be a place for the Roentgenologist and by the same token there is a place for the fluoroscope in the practitioner's office, but there is also a place to halt which should be recognized and abided by."

Everybody Is Out of Step but Mr. G. O. Vern Ment

Nice little sock on the jaw Merle Thorpe of *Nation's Business* handed those certain Washingtonians who are preaching that everything in general is wrong and must be reformed—that is everything but government.

Opines Mr. Thorpe in a recent issue of that publication:

"Now comes Solicitor General Jackson with the plaint that lawyers' fees are so high that the submerged third cannot enjoy their services, so the Bar had better do something about it, or else—.

"This completes the cycle. Doctoring costs too much, so we must have state medicine; potatoes and gingham dresses cost too much, so we must have government cooperatives and consumer councils; the lowly kilowatt, the flotation of a bond issue, the insurance policy, bank interest—all cost too much and so the Government, with a big G, must do the job. There is always to be found some demagog to indict the work and wages of every supplier of goods and services—except one! That one supplier may get his in the end—the supplier of Government. His costs have jumped from $19 per capita in 1900 to $137 per capita in 1939. And as for the quality of the article, even one of the high-priced lawyers Mr. Jackson complains of would have a difficult job to convince a jury of taxpayers that there has been that much improvement in government."

In our opinion there hasn't been that much improvement in government and judging from the way government has messed up a lot of things into which it has poked its nose unnecessarily, bigger and better messes may be anticipated if the scope of the present policy of government dictation is permitted to expand.

Difficulties are things that show what men are.—Epictetus.

Some Facts, Plus Some Good Advice About Radio Programs

Almost daily we are impressed with the importance of the radio as a medium of public education. Moreover, we are especially impressed with its potentialities for good or evil. The reason these matters are mentioned here is that so many local medical societies are using this method of carrying to the public facts about public health and scientific medicine which immediately leads to the question: Is the proper technic being used?

There is a technic, you know, to preparing and presenting a radio program which actually clicks. We have heard some medical-health programs which have been bell-ringers; some which have been terrible. In both instances, the same basic facts and information have been presented but the methods of presentation have differed.

For what they may be worth to medical socie-

ties and individual physicians appearing on radio programs, we offer the following comments, taken in part from an article in the *Jackson County (Missouri) Medical Society Bulletin*, regarding the radio programs which have been offered by that society:

"The first of the year the Public Relations Committee sponsored and arranged for a series of radio programs over station WDAF. These were a continuation of the programs which had been sponsored by the previous committees. However, after consultation with the management of the station and men in the society who had had some radio experience, it was decided to make a change in the method of presentation.

"In past years the programs had consisted of set five-minute speeches by members of the society. Experienced radio people informed us that formal speeches, even of short duration, are not received as well by the radio audiences as informal discussions. The round table type of program, which consists of one man who asks questions and makes comments at intervals, and three or four other men who answer the questions and drive home the points of the topic under discussion, was given a trial. These programs were well received and considered by the radio management to be an immediate success.

"There has been a definite effort made to attempt to make some of the topics of seasonal interest, so that many questions that arise in the minds of the laymen about spring complaints, hot weather, etc., could be answered intelligently, scientifically and in the best interest of public health and the health of the individual.

"There have been two objectives throughout. The first has been to 'debunk' certain homely conceptions based on 'grandmother' ideas of human disease. We have hoped that if people knew the facts about the simpler physiological functions of their hearts, their eyes and their digestions that they would have a greater understanding of themselves and of the need of correct medical attention. At every opportunity, the more common lay superstitions have been discussed, the fallacies of the ideas have been pointed out, and the correct idea or thought has been given. We physicians sometimes forget that our patients and their relatives do not know as much about these matters as we think they do, and that many of their mistakes are the result of lack of knowledge and of old, erroneous ideas handed down by word of mouth from generation to generation. Education is the only way that this condition can be overcome. If it is overcome, the people will be more anxious to cooperate with us, both in respect to their own health and in the correction of the social problems which face both of us.

"The second objective has been to pass on to the public the advances of medicine. It has been said that science in its discoveries is at least 25 years ahead of the application, and there is no doubt but that it is many years ahead of the people's knowledge of what is being done. The latest discoveries in diagnosis and therapy which have reduced death rates and the incidence of disease are facts of progress about which we can be proud. These should be told so that the people may know that we are progressing and how we are progressing in the ceaseless war against disease. This is the best way to build good will.

"There is no need to 'knock' and to berate those things we do not like. Medicine has too many positive assets. If and when all of the people know of these and can understand these, our position will be secure professionally, socially and politically.

"The radio is the most important method for the dissemination of knowledge today. The current war will be a war of the air, in more ways than one. The air waves will be full of propaganda, both here and abroad. We of the profession do not need to indulge in propaganda. All we need to do is to tell our story in simple, understandable terms, pass on our information and our knowledge, and we will find that it will be received appreciatively."

Attorney General Rules Contracts With Township Trustees Now Illegal

In an Opinion No. 1187, issued September 13, Attorney General Thomas J. Herbert held that House Bill No. 675, the New Ohio Poor Relief Act, does not change the responsibility of township trustees to furnish hospitalization for indigents. The Attorney General also ruled that since the enactment of H.B. 675 makes it illegal for township trustees to furnish medical relief to indigents at township expense, existing contracts between township trustees and physicians for the furnishing of medical service may be annulled.

Syliabus of the opinion follows:

1. The enactment of House Bill 675 by the Ninety-Third General Assembly did not alter the duties imposed by Section 3480-1, General Code, on boards of township trustees to furnish services of a hospital to needful indigent persons having no legal settlement in such township.

2. Where prior to the enactment of such House Bill No. 675 boards of township trustees have entered into contracts with physicians to furnish medical relief and medicines to indigents within the township for a period of one year pursuant to the authority of Sections 3490, et seq., General Code, which contracting period had not expired prior to the effective date of such House Bill No. 675, such boards of township trustees may annul such contracts under authority of Section 3491, General Code, since the taking away of their power and duty to furnish such services is a proper cause for such annulment.

O.S.U. Open House Nov. 18

The Ohio State University College of Medicine announces an "open house" on the morning of the Ohio State-Illinois Homecoming football game, at Columbus, Saturday, November 18. An interesting program of clinical-pathological conferences and a demonstration of patients will be presented in the University Hospital lecture room from 9:30 to 11:30 that morning. All physicians are welcome.

Do You Know - - -

When Dr Allan Roy Dafoe, Callander, Ontario, addressed a public meeting during the recent American Congress on Obstetrics and Gynecology at Cleveland, he was introduced to the audience by Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association.

* * *

The annual average of death from poliomyelitis in the United States is 970, compared with approximately 5,000 each from whooping cough, diphtheria and measles.

* * *

In his book, "Medical Writing, the Technique and Art", Dr. Morris Fishbein devotes a whole chapter to showing how, by careful revision, most medical papers can be reduced by at least 25 per cent.

* * *

Senate Bill 2353, enacted at the last session of Congress, authorized the construction of a $375,000 Medical Field Service School at Carlisle Barracks, Pa.

* * *

Dr. John A. Toomey, Cleveland, will be one of the guest speakers at the 89th Annual Meeting of the Medical Society of the State of Pennsylvania, at Pittsburgh, October 2-5. He will discuss, "Management of Scarlet Fever and Its Complications".

* * *

The Committee on Cost of Medical Care itself found that the Army medical system costs just double the average per capita cost for private medical care. The annual per person cost at Fort Benning, Ga., was $50.67.

* * *

In a budget presented recently to the New York City planning commission, Dr. S. S. Goldwater, commissioner of hospitals, proposed that 10 new city hospitals be erected in the next six years, costing approximately $56,000,000.

* * *

Contending that the need for such a service was not established in the application, the Federal Communications Commission recently denied the request of the Doctor's Telephone Service, New York City, for a permit to construct a special emergency radio station to page physicians in their automobiles.

* * *

According to The New England Journal of Medicine, in young women the age group from 18 to 25 years carries with it the highest incidence of tuberculosis disease, and with men the age group of highest morbidity is from 26 to 32.

Physicians in the state of New York are now required by law to report cases of cancer or other malignant tumor under their care to the local health department.

* * *

Dr. John J. Fahey, former resident of Steubenville, and graduate of Ohio State University College of Medicine in 1931, is physician to Fred B. Snite, Jr., Chicago, "the man in the iron lung".

* * *

At the last session of the Indiana General Assembly, a member introducted a bill to make it illegal to exclude unvaccinated children from school. He was recently quarantined at home with smallpox. This may be interpreted as "poetic justice", says the Indianapolis Star.

* * *

A survey made by the Michigan State Medical Society shows that the family tobacco bill was more than the average farmer's family doctor bill.

* * *

At the request of the Cincinnati Safety Council, Dr. Richard S. Austin, president of the Cincinnati Academy of Medicine, recently appointed the following committee to study the question of the use of chemical tests for automobile drivers suspected of being under the influence of alcohol: Dr. Robert A. Kehoe, director of the Kettering Research Laboratory, chairman; Dr. Frank M. Coppock, Jr., Hamilton County coroner, and Dr. K. V. Kitzmiller.

* * *

Dr. and Mrs. J. A. McClure, Columbus, recently celebrated their 59th wedding anniversary. Dr. McClure, who is 84, has been practicing medicine for 58 years. His son, Dr. Roy D. McClure, is surgeon-in-chief of Ford Hospital, Detroit.

* * *

Dr. Drew L. Davies, Columbus, chairman of the first aid and life saving division of the Ohio division of the American Red Cross, headed the staff on duty at the Red Cross emergency station during the recent Ohio State Fair. He was assisted by Drs. Donald F. Bowers, Walter F. Smith, Finley Van Orsdall and H. O. Whitaker. Emergency treatments during the Fair totaled 2,141.

* * *

Dr. Karl Ascher, former professor extraordinarius of ophthalmology at the German University in Prague, has joined the research staff of the University of Cincinnati College of Medicine.

Interesting Data on Medical Education in Ohio and Rest of Country Found in Recent Report of A. M. A. Council

THE thirty-ninth annual presentation of educational data by the Council on Medical Education and Hospitals of the American Medical Association, for the academic year 1938-1939, published in the August 26, 1939, issue of *The Journal of the A.M.A.*, pages 757-860, is a comprehensive report of the present status of undergraduate and postgraduate medical education in the United States and Canada.

The report includes information regarding the approved undergraduate medical schools; data on extension courses for practicing physicians; requirements and personnel of approved examining boards in specialties; revised lists of hospitals approved by the Council for internships, residencies and fellowships.

DATA ON OHIO SCHOOLS

Approved medical schools number 67 in the United States and nine in Canada. Ten schools of the basic medical sciences are approved in the United States and one in Canada. The report contains the following descriptive and factual data concerning Ohio's three Class A medical schools:

University of Cincinnati College of Medicine, Eden and Bethesda Avenues, Cincinnati. Candidates for admission to the freshman class must present three years of college preparation of not less than 90 hours. All candidates taking premedical work at the College of Liberal Arts, University of Cincinnati, must sign up for the seven-year combined course, and at the end of one year of satisfactory work in the College of Medicine the B.S. degree is granted by the College of Liberal Arts. The faculty consists of 112 professors, associate and assistant professors, 350 instructors and others, a total of 462. The course covers four years of eight months each, on the completion of which the M.B. degree is granted. A year's internship in an approved hospital is required, on completion of which the M.D. degree is granted. The fees are $485 a year for legal residents of Cincinnati, plus laboratory fees; $50 additional for those not legal residents of Cincinnati. The registration for 1938-1939 was 293; graduates, 71. The Acting Dean is Stanley Dorst, M.D.

Western Reserve University School of Medicine, 2109 Adelbert Road, Cleveland. The faculty includes 88 professors and 231 lecturers, assistants and others, a total of 319. The curriculum covers three years of nine months each and one year of ten months. Three years of collegiate work are required for admission and a baccalaureate degree for graduation. The total fees are, respectively, $442, $430, $415 and $425. The registration for 1938-1939 was 266; graduates, 64. The Dean is Torald Sollmann, M.D.

Ohio State University College of Medicine, Neil and Eleventh Avenues, Columbus. The faculty consists of 66 professors, associate and assistant professors, 92 lecturers, instructors, demonstrators and others, a total of 158. Three years of collegiate work are required for admission. The course covers four years of 34 weeks each. Tuition fees are $327 for the first year, $231, $231 and $312 for each of the other three years for residents of Ohio, and $150 additional for nonresidents. The registration for 1938-1939 was 306; graduates, 81. The Dean is J. H. J. Upham, M.D.

MEDICAL CURRICULUM

The standard curriculum recognized by the Council on Medical Education and Hospitals and contained in its Essentials of an Acceptable Medical School consists of from 3,600 to 4,400 hours, distributed as from 900 to 1,100 hours a year and grouped as set forth in the following schedule, each group to be allotted approximately the percentage of hours of the whole number of hours in the courses as stated:

1. Anatomy, including embryology and histology	14	— 18.5
2. Physiology	4.5	— 6
3. Biochemistry	3.5	— 4.5
4. Pathology, bacteriology and immunology	10	— 13
5. Pharmacology	4	— 5
6. Hygiene and sanitation	3	— 4
7. General medicine	20	— 26.5
Neurology and psychiatry		
Pediatrics		
Dermatology and syphilology		
8. General surgery	13	— 17.5
Orthopedic surgery		
Urology		
Ophthalmology		
Otolaryngology		
Roentgenology		
9. Obstetrics and gynecology	4	— 5
Totals	76	— 100
Electives	24	— 0

PRELIMINARY EDUCATION

On the subject of preliminary educational requirements, the Council points out that while the minimum requirement for approved schools is two years, three years or more in college is recommended. Actually, only 3.8 per cent of the freshman class of 1938-1939 were admitted with less than three years. Sixty-six of the 77 medical schools in the United States had a premedical prerequisite in excess of two years for the 1939-1940 session. Of the 5,575 graduates of the medical schools of the United States and Canada in 1939, 3,605 had baccalaureate degrees, representing 64.7 per cent of the total.

Substantial improvements in facilities are reported in a large number of the medical schools during the past five years. Following recommendations of the Council, 24 schools increased annual budgets an average of $47,192 each, totaling $1,132,599. Twenty-two schools selected students more carefully and adopted higher scholastic standards. The number of salaried instructors was increased in 25 schools. Preclinical

facilities were improved at costs of from $29,000 to $500,000 in 17 schools. Twenty schools improved clinical teaching facilities at costs totaling $10,546,529 and 11 schools have improved their libraries, building service and other facilities.

When the teaching conditions demand it, a subject may be transferred from one division to another.

STATISTICAL HIGHSPOTS

Some of the statistical highspots of the report follow:

Medical students enrolled in the United States numbered 21,302 during the year 1938-1939. There were 2,913 in Canada. Since July 1, 1938, 5,575 received M.D. degrees, 5,290 from schools in the United States and 285 from Canadian institutions. There were also 117 part-time, 251 special and 1,461 graduate students studying in medical schools.

The state furnishing the greatest number of students, according to state of birth, was New York with 2,863, followed by Pennsylvania with 1,849, Illinois with 1,443 and Ohio with 1,097. Of the 865 students in Ohio's three Class A medical schools, 611 were natives of the state and 254 were born elsewhere.

During 1938-1939 there were 1,144 women studying medicine in the United States, 5.4 per cent of the total number. There were 260 graduates, 23 more than last year.

Continuation of the yearly decrease since 1931 in the number of medical students is shown on Table 1, listing the number of medical schools, students and graduates in the United States for the years 1905, 1910, 1915, 1920 and each year thereafter.

TABLE 1

Schools, Students and Graduates in the United States—1905-1938

Year	No. Schools	Students*	Graduates
1905	160	26,147	5,606
1910	131	21,526	4,440
1915	96	14,891	3,536
1920	85	13,798	3,047
1921	83	14,466	3,186
1922	81	15,635	2,520
1923	80	16,960	3,120
1924	79	17,728	3,562
1925	80	18,200	3,974
1926	79	18,840	3,962
1927	80	19,662	4,035
1928	80	20,545	4,262
1929	76	20,878	4,446
1930	76	21,597	4,565
1931	76	21,982	4,735
1932	76	22,135	4,936
1933	77	22,466	4,895
1934	77	22,799	5,035
1935	77	22,888	5,101
1936	77	22,564	5,183
1937	77	22,095	5,377
1938	77	21,587	5,194
1939	77	21,302	5,089

*Includes figures for schools offering preclinical courses.

Of the 6,356 students selected for the freshman class for the 1934-1935 session, it is interesting to note that 898 failed or for other reasons did not continue their studies and further that 1,216 had dropped out by the end of the second medical year. The beginning class in 1936 made a better record, 963 of the 5,910 freshmen having dropped out before the beginning of the junior year.

There were 350 Negro medical students in the United States and Canada in 1938-1939, and 69 graduates. The only medical school for Negro youth, Meharry Medical College, Nashville, Tenn., matriculated 183 students and had 30 graduates. At Howard University College of Medicine they comprise a majority of those in attendance, and for this session 122 of a class of 129, and 28 of the 30 graduates were Negroes. These two schools graduated 84 per cent of the total Negro graduates. According to figures computed from the 1938 American Medical Directory, there were 3,392 Negro physicians in the United States.

The average resident fee charged in medical schools in the United States last year was $353.

Table 2 shows the number of graduates of foreign medical faculties (representing both American and foreign born physicians) examined by licensing boards in the United States during the past nine years, and the percentage of failures.

TABLE 2

Graduates of Faculties of Medicine Abroad Examined—1930-1938

Year	Number Examined	Passed	Percentage Failed
1930	167	92	44.9
1931	158	91	42.4
1932	182	96	47.3
1933	200	129	35.5
1934	285	170	40.2
1935	437	303	30.7
1936	588	382	35.0
1937	919	636	30.7
1938	1,166	716	38.6
Totals	4,103	2,616	36.3

INTERN TRAINING IN OHIO

Of the 734 hospitals in the United States approved for intern training, 43 are located in Ohio. Table 3 contains interesting information concerning each of these hospitals and their facilities for training interns.

SATISFACTORY FOR RESIDENCIES

Ohio hospitals approved for residencies in specialties are: **Communicable Diseases,** City Hospital, Cleveland. **Dermatology and Syphilology,** Cincinnati General Hospital; City Hospital and University Hospitals, Cleveland. **Gynecology,** University Hospitals, Cleveland; and Starling-Loving University Hospital, Columbus. **Medicine,** City Hospital, Akron; Mercy Hospital, Canton; Cincinnati General Hospital, Deaconess Hospital, Good Samaritan Hospital, Jewish Hospital and Christ Hospital, Cincinnati; City Hospital, Mount Sinai Hospital, St. Alexis Hospital, St. John's Hospital, St. Luke's Hospital, St. Vincent Charity Hospital and University Hospitals,

Cleveland; Starling-Loving University Hospital, Columbus; St. Elizabeth's Hospital, Youngstown Hospital, Youngstown; Miami Valley Hospital, Dayton; Huron Road Hospital, East Cleveland; Lucas County General Hospital, Toledo. **Psychiatry**, Cincinnati General Hospital and Longview State Hospital, Cincinnati; City Hospital, Cleveland; Toledo State Hospital, Toledo; Harding Sanatorium, Worthington; Columbus State Hospital, Columbus. **Obstetrics**, Cincinnati General Hospital; City Hospital, Mount Sinai Hospital, St. Ann's Maternity Hospital, St. John's Hospital, St. Luke's Hospital and University Hospitals, Cleveland; and Miami Valley Hospital, Dayton. **Obstetrics-Gynecology**, Huron Road Hospital, E. Cleveland; Mercy Hospital, Canton; Lucas County General Hospital, Toledo. **Ophthalmology**, Cincinnati General Hospital; City Hospital and University Hospitals, Cleveland. **Ophthalmology-Otolaryngology**, Starling-Loving Hospital, Columbus. **Orthopedic Surgery**, Cincinnati General Hospital; Mount Sinai Hospital and University Hospitals, Cleveland. **Otolaryngology**, Cincinnati General Hospital; City Hospital, St. Luke's Hospital and University Hospitals, Cleveland. **Pathology**, Cincinnati General Hospital; City Hospital, Mount Sinai Hospital, St. Luke's Hospital, St. Vincent Charity Hospital and University Hospitals, Cleveland; Starling-Loving University Hospital, Columbus; Miami Valley Hospital, Dayton. **Pediatrics**, Children's Hospital, Akron; Children's Hospital, and Cincinnati General Hospital, Cincinnati; St. Vincent Charity Hospital and University Hospitals, Cleveland; Children's Hospital, Columbus. **Radiology**, Cincinnati General Hospital and Jewish Hospital, Cincinnati; City Hospital, University Hospitals and Cleveland Clinic Hospital, Cleveland. **Sur-**

TABLE 3

Name of Hospital	Location	Control	Capacity	Classification of Patients Percentage			Affiliated Service	Outpatient Service	Autopsy Percentage	Salary per Month		Total Patients Treated	Type of Internship	Number of Interns	Length of Service in Months	Service Commenced
				Free	Part Pay	Full Pay										
City Hospital	Akron	NPAssn	365	37		63	9,529	Rotating	12	12	July	(76)	Req	40	$22	
Peoples Hospital[1]	Akron	NPAssn	156	40		60	4,115	Rotating	5	12	July	(76)	Req	35	$30	
St. Thomas Hospital	Akron	Church	185	26	48	26	5,088	Rotating	4	12	July	No	None	28	$20	
Aultman Hospital	Canton	NPAssn	161	23	58	19	3,535	Rotating	4	12	July	(77)	None	31	$50	
Mery Hospital	Canton	Church	237	17	58	25	6,696	Rotating	5	12	July	No	None	35	$25	
Bethesda Hospital	Cincinnati	Church	279	50	30	20	6,466	Rotating	6	12	July	No	Req	24	$25	
Christ Hospital	Cincinnati	Church	352	4	39	57	7,825	Rotating	9	12	June	(78)	Reg	30	$22.50	
Cincinnati General Hosp.[1]	Cincinnati	City	925	87	10	3	15,851	Rotating	40	12	July	(79)	Req	51	No	
Deaconess Hospital	Cincinnati	Church	200	6	41	53	4,469	Rotating	6	12	July	(80)	None	20	$25(g)	
Good Samaritan Hosp.[1]	Cincinnati	Church	615	10	61	29	10,581	Rotating	12	12	June	No	None	30	$15	
Jewish Hospital	Cincinnati	NPAssn	299	35	29	36	5,986	Rotating	8	12	July	(81)	Req	29	$20	
St. Mary's Hospital	Cincinnati	Church	220	67	25	8	4,545	Rotating	6	12	July	No	None	27	$25	
City Hospital[1]	Cleveland	City	1,579	85	10	5	13,740	Rotating	36	12	July	No	Req	45	No	
Fairview Park Hospital	Cleveland	Church	109	18	2	80	3,126	Rotating	6	12	July	No	Req	37	$30	
Lutheran Hospital	Cleveland	Church	137	5	40	55	4,138	Rotating	4	12	July	No	None	29	$25(e)	
Mount Sinai Hospital[1]	Cleveland	NPAssn	270	23	10	67	8,445	Rotating	11	12	July	No	Req	41	$10	
St. Alexis Hospital	Cleveland	Church	220	55	5	40	4,633	Rotating	8	12	July	(82)	Req	44	$10	
St. John's Hospital	Cleveland	Church	249	17	3	80	5,823	Rotating	6	12	July	No	None	26	$12.50(hh)	
St. Luke's Hospital	Cleveland	Church	391	18	1	81	11,883	Rotating	18	12	July	No	Req	35	No	
St. Vincent Charity Hosp.	Cleveland	Church	295	32	1	67	5,417	Rotating	12	12	July	(82)	Req	34	No	
University Hospitals[1]	Cleveland	NPAssn	822	30	5	65	19,336	Rotating	39	12-24	(ii)	No	Req	61	(jj)	
Woman's Hospital[1]	Cleveland	NPAssn	110	6	20	74	2,101	Rotating	3	12	July	No	None	21	$25	
Grant Hospital	Columbus	NPAssn	333	19	41	40	6,309	Rotating	8	12	July	No	Req	20	$25	
Mount Carmel Hospital	Columbus	Church	250	24	33	43	5,109	Rotating	8	12	July	(83)	None	29	$25	
St. Francis Hospital	Columbus	State	160	70	12	18	3,063	Mix&Str	8	12	July	(84)	None	33	$125 yr.	
Starling-Loving Univ. Hosp.[1]	Columbus	State	296	50	11	39	5,717	Rotating	10	12	July	No	Req	63	$50 yr.	
White Cross Hospital[1]	Columbus	Church	299	25	45	30	6,965	Rotating	6	12	July	No	None	33	$25	
Good Samaritan Hosp.[1]	Dayton	Church	298	40	5	55	4,231	Rotating	4	12	July	No	None	23	$25	
Miami Valley Hospital	Dayton	NPAssn	431	29	31	40	10,813	Rotating	8	12	July	(85)	None	44	$25	
St. Elizabeth Hospital	Dayton	Church	435	49	7	44	7,110	Straight	6	12	July	No	None	26	$25	
Huron Road Hospital[1]	E. Cleveland	NPAssn	301	2	22	76	7,293	Rotating	9	12	July	No	Req	42	$20	
Mercy Hospital	Hamilton	Church	240	20	60	20	3,184	Rotating	3	12	July	No	Req	31	$25(s)	
Lima Memorial Hospital	Lima	NPAssn	144	3	72	25	3,759	Rotating	4	12	July	No	None	32	$20	
St. Rita's Hospital	Lima	Church	116	6	45	49	2,381	Rotating	3	12	July	No	Req	32	$25	
Springfield City Hospital	Springfield	City	298	40	26	34	5,056	Rotating	6	12	July	No	Req	44	$30	
Flower Hospital	Toledo	Church	135	8	40	52	2,861	Rotating	3	12	July	No	None	35	$25	
Lucas County Gen. Hosp.	Toledo	County	325	100			5,886	Rotating	10	12	July	No	Req	35	$25	
Mercy Hospital	Toledo	Church	140	13	49	38	2,932	Rotating	4	12	July	No	Req	20	$25	
St. Vincent's Hospital[1]	Toledo	Church	354	25	41	34	9,901	Rotating	10	12	July	No	Req	30	$25	
Toledo Hospital	Toledo	NPAssn	300	5	50	45	4,255	Rotating	5	12	July	No	Req	36	$25	
Women's and Children's Hosp.	Toledo	NPAssn	150	3	52	45	2,059	Rotating	3	12	July	No	Req	27	$25	
St. Elizabeth's Hospital	Youngstown	Church	261	36	36	28	6,443	Rotating	7	12	July	No	Req	21	$20(e)	
Youngstown Hospital	Youngstown	NPAssn	565	25	3	72	9,520	Rotating	14	12	July	No	Req	29	$20-35	

Explanatory references—Abbreviations: NPAssn—Nonprofit Association; Req—required; op—optional; [1]women interns admitted; 76—Children's Hospital, Akron, pediatrics; 77—Molly Stark Sanatorium, Canton, tuberculosis; Massillon State Hospital, Massillon, psychiatry; 78—Children's Hospital, Cincinnati, pediatrics; 79—Hamilton County Tuberculosis Sanatorium, Hamilton County Home and Chronic Disease Hospital, Cincinnati; 80—Longview State Hospital, Cincinnati, psychiatry; 81—Cincinnati General Hospital, pediatrics, otolaryngology; 82—St. Ann's Maternity Hospital, Cleveland; 83—Children's Hospital, Columbus, pediatrics; 84—St. Ann's Infant Asylum and Maternity Hospital, Children's Hospital, Columbus, obstetrics, pediatrics; 85—Stillwater Sanatorium, Dayton, tuberculosis; ii—February, June, July, October; g—Bonus of $100; e—Bonus of $60; hh—Bonus of $30; s—Bonus of $300; jj—$20 per month after 12 months service.

gery, City Hospital and St. Thomas Hospital, Akron; Mercy Hospital, Canton; Cincinnati General Hospital, Deaconess Hospital, Good Samaritan Hospital, Jewish Hospital, Cincinnati; City Hospital, Mount Sinai Hospital, St. Alexis Hospital, St. John's Hospital, St. Luke's Hospital, St. Vincent Charity Hospital, University Hospitals and Huron Road Hospital, Cleveland; Starling-Loving University Hospital, Columbus; Miami Valley Hospital, Dayton; St. Elizabeth's Hospital, Youngstown; Lucas County General Hospital, Toledo. **Tuberculosis**, Hamilton County Tuberculosis Sanatorium, Cincinnati; City Hospital, Cleveland; Sunny Acres, Cleveland Tuberculosis Sanatorium, Warrensville. **Urology**, City Hospital and University Hospitals, Cleveland; Starling-Loving University Hospital, Columbus. **Thoracic Surgery**, City Hospital, Cleveland. **Anesthesiology**, Huron Road Hospital, East Cleveland; **Mixed**, Glenville Hospital, Cleveland; Mansfield General Hospital, Mansfield.

REGARDING EXAMINING BOARDS

In its 39th annual report, the Council on Medical Education and Hospitals reproduces announcements of the approved examining boards in medical specialties, including the history of the organization of each, present officers, qualifications, purposes, fees, examination requirements and other pertinent data. Boards described in the report are: American Board of Anesthesiology, Inc., an affiliate of the American Board of Surgery; American Board of Dermatology and Syphilology; American Board of Internal Medicine, Inc.; American Board of Obstetrics and Gynecology, Inc.; American Board of Ophthalmology; American Board of Orthopaedic Surgery, Inc.; American Board of Otolaryngology; American Board of Pathology, Inc.; American Board of Pediatrics, Inc.; American Board of Psychiatry and Neurology, Inc.; American Board of Radiology, Inc.; American Board of Surgery, Inc.; American Board of Urology, Inc.; Advisory Board for Medical Specialties.

POSTGRADUATE PROGRAMS

The subject of graduate medical education is given considerable attention in this year's report of the Council. It is pointed out that there were 109 opportunities for practicing physicians to engage in continuation study in 42 states and the District of Columbia last year. There were 50 opportunities for postgraduate study by physicians near their communities in 38 states, and 43 of the courses offered were sponsored either singly or jointly by state medical societies. Ohio was second only to Michigan in the number of physicians attending postgraduate courses in the vicinity of their homes, according to a comprehensive table showing the results of the Council's study of facilities for postgraduate education in the various states.

Ohio Valley Allergy Society To Meet in Cincinnati, Oct. 28-29

The Ohio Valley Allergy Society extends a cordial invitation to all physicians to attend its meeting at the Hotel Gibson, Cincinnati, Saturday and Sunday, October 28-29. The meeting will open with an informal session, beginning at 8 o'clock Saturday evening. Program for the Sunday session follows:

10:00 A.M.

1. "Potassium Chloride Therapy in Allergic Diseases", (30 minutes). Brief summary of the clinical experiences of all members.

2. "Histaminase Therapy in Allergic Diseases", (10 minutes). "Clinical Experiences", Jonathan Forman, M.D., Columbus; discussants—G. E. Rockwell, M.D., Cincinnati, and Wm. F. Mitchell, M.D., Columbus.

3. "Emphysema—The Importance of the Excursions of the Diaphragm in Estimating Prognosis—Breathing Exercises", (20 minutes), John H. Mitchell, M.D., Columbus; discussants—Bennett Kraft, M.D., Indianapolis, Ind., and Carl D. Marsh, M.D., Springfield.

4. "Tetanus Toxoid—Present Status—The Advisability of Its Use in Immunizing Horse Serum Sensitive Individuals", (20 minutes), G. E. Rockwell, M.D., Cincinnati; discussant—C. A. Koch, M.D., Cincinnati.

1:00 P.M.—Dinner.

2:00 P.M.

5. "The Asthma Syndrome Due to Heart Disease", (25 minutes), Armand Cohen, M.D., Louisville, Ky.; discussants—Albert R. Gross, M.D., Cincinnati; G. C. Grout, M.D., Dayton, and Charlotte B. Wiedemer, M.D., Cincinnati.

6. "Aspirin Sensitive Asthmatics—Age Group, Clinical Features, Skin Reactivity, Treatment, Prognosis", (25 minutes), C. B. Bohner, M.D., Indianapolis, Ind.; discussants—Harold King, M.D., Cincinnati, and L. E. Seyler, M.D., Dayton.

Promise To Obey

Recent marriages of Ohio physicians include the following: Miss Grace Milliken, Elyria, and Dr. Watson D. Parker, Sandusky; Dr. Clara Grace Bonner and Robert Blund Dudley, Columbus; Miss Blanca Sara Hambleton and Dr. L. H. Van Buskirk, Columbus; Dr. Dorothy Falkenstein, Columbus, and Dr. Albert Smith, Iowa City; Miss Barbara Smith, Youngstown, and Dr. Arthur Lippert, Cincinnati; Miss Alice Cecille Deffner, Ironton, and Dr. Harold H. Macumber, Cleveland; Miss Edna Trinter and Dr. E. J. Heinig, Vermillion; Mrs. Bessie M. Johnson, Saginaw, Mich., and Dr. Albert D. Williams, Huntsburg; Miss Wanda Carmichael, New Carlisle, and Dr. Glendon Harner, Winston-Salem, N. C.; Miss Erma Dotts, Carrollton, and Dr. Francis E. Sauer, Canton.

Credit Information in Medical Practice

STANLEY R. MAUCK

IN a series of articles on the subject of "Collecting Medical Fees", appearing in *The Journal of the American Medical Association* in 1938, the following statement was made:

"Greater attention to the 'business' side of medical practice is not unprofessional or beneath the dignity of the medical profession, particularly when it can be shown that lack of attention to the proper conduct of the business side of medical practice results in harm to good medical service by threatening to destroy the essential personal and friendly relations between physicians and their patients. Physicians, generally speaking, seek merely an amount of remuneration for services rendered which is consistent with a high quality of ethical medical care."

This article made further comment to the effect that if the economic phase of the practice of medicine is to keep pace with the scientific achievements, both the individual physician and medical societies must study thoroughly all questions which have a bearing on payment for medical service. It was emphasized that very frequently unscrupulous and unworthy patients profit by escaping any payment for medical services while the honest conscientious patient seems to bear the burden of higher charges in order that the physician could maintain his practice.

This is the eighth of a series of articles on "Office Problems of the Physician" which are being presented in Volume 35 of the Ohio State Medical Journal.

Mr. Mauck, author of the series, serves as Executive Secretary of the Columbus Academy of Medicine and as Director of the Columbus Bureau of Medical Economics. Previously he operated a private professional management service for physicians.

SOUND CREDIT CONTROL

In our preceding discussions of the physicians' office problems we have dealt largely with the proper control of his collection procedure. There is still another angle of this problem which is related to more extensive use of credit information before the collection problem becomes acute. In the *Journal* articles above referred to, the statement is also made that "more attention to sound credit practices before credit is extended to patients and more frequent use of good office records and proper billing procedure, can prevent much of the loss from bad debts."

The average physician throws up his hands in holy horror at the mention of the subject of credit reports. Considered in the light of the use made of credit information by commercial firms, this attitude is probably justifiable. Credit information will seldom, if ever, be used by the physician as a basis for determining whether or not he should serve. The department store, of course, either extends or refuses credit on the basis of the reports received about the prospective customer. The physician, however, cannot operate in this manner. The ethical standards of the profession dictate that no physician commercialize his practice to the point of making a credit report the determining factor in his responding to the call for essential health care. The poor he will treat without charge and he will refrain from undue pressure on the worthy patient who is honestly up against an insurmountable economic problem.

There is a definite place, however, for the legitimate use of credit information in the physician's office. Granting that some physicians in the rural sections and smaller communities do not have convenient access to the use of established credit rating services, adequate credit facilities are, nevertheless, available to the large majority of physicians. In almost every county seat a credit reporting service of some kind is functioning. Physicians would do well to consider the practical value of more assistance from this source.

KNOW YOUR PATIENTS

One of the most effective guides in handling the collection problem is that of knowing something about the debtor. While the physician will not ask the patient to "cool his heels" in the waiting room while he calls the credit bureau for a report, there is certainly nothing unprofessional about ascertaining the patient's economic status in the early stages of the professional relationship. The usual reaction from the doctor to this suggestion is to the effect that regardless of how good a credit standing a patient may have in the commercial field, he may be extremely slow-pay, or even a dead-beat, so far as professional bills are concerned. Unfortunately this situation prevails all too often, but as emphasized in our previous articles, the physician himself is likely to be responsible for this state of affairs. If, on the other hand, the physician can establish that his patient maintains a good credit standing in the community, it is logical to assume that he, also, can effect collection with reasonable promptness, if sound business practices are followed with reference to the account.

It is significant to know that the patient is financially responsible and **does** pay his bills in all his commercial relationships. If the physician does not collect, it is his own fault. On the other hand, the credit report may show a bad general credit background, in which case it is almost certain that a tough collection problem faces the physician. Fortified with this advance information, the matter may be approached scientifically and pressure brought to bear on the account without undue delay. This statement is almost an axiom: **while people with good commercial credit ratings frequently are slow-pay with their physician, those with bad ratings are invariably bad—or hopeless—in the professional field.**

VALUABLE AS GUIDE

Credit reports are valuable to the physician, therefore, not for the purpose of determining whether to serve or not to serve, but rather as a guide for handling the account after service has been rendered. Physicians are too much accustomed to assume that they know all the circumstances about their various patients. This is especially true in the smaller towns and rural sections where the physician has some personal knowledge about many of his clientele. A credit report oftentimes will reveal facts quite contrary to the physician's assumption. The hard-pressed struggling patient, according to the physician's impression, is often found to be a gilt-edged credit risk for the purchase of radios, automobiles, furniture, etc., on the installment plan at the nearest trading center. While there may be no evidence of substantial net worth, he nevertheless may be thoroughly self-sustaining in all phases of his economic existence—except probably for his medical care. Armed with this information, the physician then can feel perfectly justified in asking that his own bills be paid with the same promptness that the other obligations are met.

Again, a report from the credit bureau may reveal cases with the opposite result. With exact knowledge about a patient's financial situation—income, current obligations, etc.—the physician can frequently avoid unjustified fees which are all out of proportion to the patient's ability to pay. In short, credit reports may be used as a scientific basis not only in determining what procedure should be followed to effect collection, but also as a guide for determining who is entitled to special consideration as to the amount of the fees to be charged.

SOME VARIATIONS NECESSARY

This is written with the full knowledge that physicians, in general, will continue to abhor the use of credit information. Even for those who read, there will be little agreement with these suggestions to the point of stimulating greater use of credit information. It is hoped, however, that some will be influenced to consider the practical value of credit information on certain of their patients. There is growing evidence, especially in the cities, that physicians are becoming increasingly conscious of the necessity for better business procedure in the conduct of their practice. For those who will agree to the small expense involved in affiliating themselves with their local credit bureau, the facilities afforded will be decidedly worthwhile. It should be understood, of course, that credit reports are **not** advocated on all patients of the physicians. This precaution is practical only where amounts involved are considerable, probably related to periods of extended illness, hospitalization, surgery, etc. The important point which we wish to emphasize is that credit information can be used as a valuable aid in protecting the assets of a physician's practice if only he will have the good judgment to use these services for the cases where such help is clearly indicated.

The ninth installment in this series of articles on "Office Problems of the Physician" will follow next month.

E. R. Squibb & Sons Establish New Laboratory

Establishment of a new laboratory for the study of filterable virus diseases is announced by the Squibb Biological Laboratories. Dr. Raymond C. Parker, biologist of the Rockefeller Institute for Medical Research, and for many years an associate of Dr. Alexis Carrel, has been appointed to head the laboratory, which will operate as a unit of the Biological Division of E. R. Squibb and Sons at New Brunswick, N. J. The new building is a continuation of expansion which began in the Fall of 1938 with the dedication of the $750,000 laboratory of the Squibb Institute for Medical Research. More than 500 scientists from ten nations witnessed the first demonstration of the new virus laboratory during a tour of the Squibb Institute and the Biological Laboratories, September 6-7. The group was composed of delegates to the Third International Congress for Microbiology, which met in New York, September 2-9.

A.P.H.A. Meeting, Oct. 17-20

The 68th Annual Meeting of the American Public Health Association will be held at the William Penn Hotel, Pittsburgh, October 17-20. An elaborate program on public health, industrial hygiene and related subjects has been arranged. Ohioans scheduled to speak include Dr. Clarence D. Selby, Toledo; Dr. Carl A. Wilzbach, Cincinnati, and I. C. Plummer, Columbus, chief, Division of Vital Statistics, State Department of Health.

In Memoriam

Hudson D. Bishop, M.D., Cleveland; Cleveland University of Medicine and Surgery, 1890; aged 73; member of the Ohio State Medical Association and Fellow of the American Medical Association; died August 17. A practicing physician in Cleveland for 49 years, Dr. Bishop had been a member of the staff of Maternity Hospital since it was founded. He was a former member of the staffs of City and Huron Road Hospitals, and for a number of years was a member of the faculty of the Cleveland University of Medicine and Surgery. Dr. Bishop was a charter member of the Ohio State chapter of Beta Theta Pi. His son and a brother survive.

Irving Jerome Bleiweiss, M.D., Cleveland; School of Medicine of the Division of Biological Sciences, University of Chicago, 1933; aged 33; died August 30, in Chicago, where he was doing research work. Surviving are his father, three sisters and a brother.

Adelbert D. Bowen, M.D., West Lodi; Toledo Medical College, 1885; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died September 2. Dr. Bowen practiced in Millersville for one year, and in 1886 located in West Lodi, serving in that community for 53 years. He was a member of the Masonic Order. Members of the Senaca County Medical Society were honorary pallbearers at Dr. Bowen's funeral. Two daughters, three sons and a brother survive.

Charles R. Buck, M.D., Columbus; Pulte Medical College, Cincinnati, 1902; aged 62; died September 1. Dr. Buck had been located in Columbus for one year. He formerly practiced in Cincinnati. His widow and two brothers survive.

William Bricker Chamberlin, M.D., Cleveland; Western Reserve University School of Medicine, Cleveland, 1900; aged 66; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; member of the American Laryngological Association; American Laryngological, Rhinological and Otological Association and the American Bronchoscopic Society; died September 6. A former president of the Cleveland Academy of Medicine, Dr. Chamberlin was clinical professor of otolaryngology at Western Reserve. For many years he was president of the Cleveland Society for the Hard of Hearing. Surviving are his widow and two sons.

Burkert Clark, M.D., Shandon; Miami Medical College, Cincinnati, 1901; aged 65; former member of the Ohio State Medical Association and the American Medical Association; died August 25. Dr. Clark first practiced in Norwood, locating in Shandon in 1913. During the World War he served in the Medical Corps of the U. S. Army. He was an active member of the Congregational Church. Surviving are one sister and two brothers.

Stephen A. Cunningham, M.D., Marietta; Medical College of Ohio, Cincinnati, 1890; aged 72; member of the Ohio State Medical Association and the American Medical Association; died August 14. After several years' practice in Chattanooga, Tenn., and in Cedarville, Dr. Cunningham opened an office in Marietta in 1896. An active member and former officer of the Washington County Medical Society, Dr. Cunningham had also served on the local Board of Health. He was a candidate for the Republican nomination for Congress in the Fifteenth District in 1938. Dr. Cunningham was a member of the Masonic Order; a former exalted ruler of the local Elks' Lodge and a member of the Modern Woodmen of America. His widow, a daughter, a son and daughter by a former marriage, and a sister survive.

Oliver Hines Finnical, M.D., Cadiz; Starling Medical College, Columbus, 1895; aged 67; member of the Ohio State Medical Association and the American Medical Association; died September 9. Dr. Finnical practiced in Cadiz for 44 years. Surviving are his widow, a daughter, two sons, one of whom is Dr. Robert N. Finnical, Wheeling, W. Va., and three sisters.

Clement Isaac Harpster, M.D., Cleveland; Cleveland-Pulte Medical College, 1908; aged 74; died August 23. A native of Holmes County, Dr. Harpster practiced in Cleveland for many years, retiring because of ill health a few years ago. His widow and two sons survive.

Vincent D. Krout, M.D., Mechanicsburg; Medical College of Ohio, 1897; aged 70; died August 16. Dr. Krout practiced in Harmony and South Vienna, Clark County, for a few years, locating in Mechanicsburg in 1900. He retired from active practice in 1901 to take up farming. For 30 years he was a member of the Pike Township Board of Education and was a member of the Methodist Church. His widow, a daughter and a son survive.

Asa R. Lydy, M.D., Willard, Hahnemann Medical College and Hospital, Chicago, 1883; aged 86; died September 4. Dr. Lydy practiced in Bellville for many years. He was a member of the Masonic Order. His widow, a daughter and a son survive.

Joseph Alexander McCready, M.D., Greenwich; Bellevue Hospital Medical College, New York, 1875; aged 92; member of the Medical Society of the State of Pennsylvania and the American Medical Association; died August 19. Dr. McCready retired five years ago, after over 60 years of active practice in Sewickley and Pittsburgh, Pa., and Greenwich and New London. Two daughters and four sons survive.

Edward Grigsby Moench, M.D., Belle Center; Eclectic Medical College, 1926; aged 38; died September 8. Dr. Moench practiced in Belle Center for five years. He formerly practiced in Dunkirk and Kenton. He was a member of Delta Kappa Epsilon. Surviving are his parents, Dr. and Mrs. Fred Moench, Belle Center; a sister and a brother, Dr. Geo. F. Moench, Delaware.

Frank E. Shepardson, M.D., Painesville; Indiana Eclectic Medical College, Indianapolis, 1889; aged 77; died August 22. Dr. Shepardson retired ten years ago, after having practiced in Cleveland for 35 years, and in Louisville, Ky., for five years. He was a member of the Masonic Order and the Congregational Church. His widow survives.

Amy Silvieus, M.D., Cleveland; Cleveland University of Medicine and Surgery, 1897; aged 63; died August 21. Dr. Silvieus had practiced in Lima and Cleveland. A brother survives.

Henley A. Stark (Sklarsky) M.D., Cleveland; Cornell University Medical College, New York, 1937; aged 27; accidentally drowned, August 13. Dr. Stark was about to enter private practice after having served his internship and one year as resident in obstetrics at Mt. Sinai Hospital, Cleveland. His mother and two sisters survive.

Henry G. Stemen, M.D., Lebanon; Medical College of Ft. Wayne, Indiana, 1878; aged 89; died August 19. Dr. Stemen practiced in Delphos for 43 years, retiring in 1921.

Robert E. Taft, M.D., Cleveland; Cleveland College of Physicians and Surgeons, 1898; aged 73; former member of the Ohio State Medical Association and Fellow of the American Medical Association; died September 9. Dr. Taft practiced in the Newburg district for over 40 years. His widow, a daughter, a son and a sister survive.

John W. Wills, M.D., Wellston; Kentucky School of Medicine, Louisville, Ky., 1890; aged 76; former member of the Ohio State Medical Association and the American Medical Association; died August 14. Dr. Wills had practiced in Wellston since 1917. He was formerly located in Richmond Dale and in Illinois. Dr. Wills was a member of the Methodist Church and the I.O.O.F. Surviving are a son, and three brothers, one of whom is Dr. L. E. Wills, Waverly.

William A. Zellars, M.D., Cleveland; College of Physicians and Surgeons, Baltimore, Md., 1891; aged 73; former member of the Ohio State Medical Association and the American Medical Association; died August 11. Dr. Zellars practiced in Freeport, Harrison County, for many years, retiring several years ago because of ill health. He had served as postmaster; president of the local and county boards of education; member of the town council and president and director of the Freeport State Bank. Surviving are his widow, a daughter and a sister.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16, 1940.

American Medical Association, New York, June 10-14, 1940.

American Academy of Pediatrics, Cincinnati, Nov. 16-18.

American College of Surgeons, Philadelphia, Oct. 16-20.

American Clinical and Climatological Association, Saranac Lake, N. Y., Oct. 9-11.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 8-13.

American Public Health Association, Pittsburgh, Oct. 17-20.

American Society of Anesthetists, New York, Oct. 12.

Association of American Medical Colleges, Cincinnati, Oct. 23-25.

Central Society for Clinical Research, Chicago, Nov. 3-4.

Clinical Orthopaedic Society, Little Rock, Ark., and Oklahoma City, Oct. 13-14.

Southern Medical Association, Memphis, Tenn., Nov. 21-24.

Southern Surgical Association, Augusta, Ga., Dec. 5-7.

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. L. Harold Martin, Ashland; Dr. W. F. Yarris, Norwalk; Dr. Samuel K. Gerson, Newcomerstown; Dr. Frederick S. Coombs, Youngstown; Dr. Charles B. Ahlefield, West Alexandria; Dr. Carl E. Dix, Columbus; Dr. Russell Wiessinger, Sidney; Dr. Harvey J. Staton, West Carrollton; Dr. Paul D. Hahn, Coshocton; Dr. Ernest Speyer, Sandusky; Dr. Richard L. Brown, Piqua; Dr. Robert R. Rudolph, Columbus; Dr. L. J. Kerschgens, Steubenville; Dr. Clarence Samsell, Dayton; Dr. John Hathaway, Columbus; Dr. W. H. Willis, Painesville; Dr. John W. Young, Steubenville.

Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

CLERMONT

Dr. John H. Skavlem, Cincinnati, spoke on "Tuberculosis" at a meeting of the Clermont County Medical Society, Wednesday evening, September 20, at the Court House, Batavia. The meeting was attended by a committee of the John Farino Post No. 550, American Legion, New Richmond, which recently purchased an oxygen tent and equipment for the use of the physicians of the county.—J. M. Coleman, M.D., secretary.

HAMILTON

The first regular meeting of the 1939-1940 year of the Cincinnati Academy of Medicine was opened by an address by the retiring president, Dr. Richard S. Austin, followed by the inaugural address of the incoming president, Dr. E. O. Swartz, and reports of standing committees.—Bulletin.

HIGHLAND

Dr. R. E. Tyvand, Dayton, was the speaker at a meeting of the Highland County Medical Society, Wednesday noon, September 6, at Hillsboro.—News clipping.

WARREN

"Pneumonia" was discussed by Dr. Albert F. Kuhl, Dayton, at a meeting of the Warren County Medical Society, Tuesday afternoon, September 5, at the Town Hall, Lebanon. The Committee on Public Relations reported on provisions for medical care for indigents under the new Ohio Poor Relief Act.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

Local dentists were guests of the Greene County Medical Society at a meeting at Xenia, Thursday, September 7, at which H. L. Dersham, D.D.S., Dayton, presented a paper on "Prevention of Malocclusion as It Is Related to the Mandible".—Donald F. Kyle, M.D., secretary.

MIAMI

Dr. L. N. Lindenberger, Troy, spoke on "Dermatitis Resulting From Sensitivity to Novocain", at a meeting of the Miami County Medical Society, Friday afternoon, September 1, at the Piqua Memorial Hospital. Through the courtesy of the Tower Co., Inc., motion pictures were shown demonstrating "The Dr. Roger Anderson Technique in the Reduction of Fractures of the Extremities".—G. A. Woodhouse, M.D., secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

HANCOCK

Following an address by Dr. W. J. Smith, Columbus, chief of the Bureau of Tuberculosis, State Department of Health, at the Elks' Club, Findlay, Thursday evening, September 14, the Hancock County Medical Society went on record as being in favor of an educational program in the Findlay and Hancock County schools for the examination for tuberculosis of all pupils, instructors, bus drivers and cafeteria attendants.—News clipping.

MARION

Approximately 35 members of the Marion Academy of Medicine attended a meeting at the Marion City Hospital, Wednesday evening, September 6, at which Dr. Russel G. Means, Columbus, spoke on "New Conceptions of Otitis Media".—News clipping.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

PUTNAM

A picnic supper at Pandora Park, under the management of Dr. M. B. Rice, Pandora, preceded a meeting of the Putnam County Medical Society, Tuesday, September 5. Dr. W. B. Recker, Leipsic, president of the society, outlined the contemplated program of society activities for the coming year. Mrs. Bonnie Corns, Putnam County relief director, discussed in a most interesting manner the provisions of the new Ohio Poor Relief Law. It was generally agreed that the new law is an improvement over previous legislation, and that it points to a better future cooperation between relief authorities, legislators and the medical societies.—H. N. Trumbull, M.D., correspondent for *The Journal*.

WOOD

Dr. Fred M. Douglass, Toledo, discussed "Medical Care of the Indigent and Low Income Group" at a meeting of the Wood County Medical Society, Thursday, September 21, at the Woman's Club, Bowling Green.—R. N. Whitehead, M.D., secretary.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

ASHTABULA

At a dinner meeting of the Ashtabula County Medical Society, Tuesday night, at Ashtabula, Dr. Donald M. Glover, Cleveland, spoke on "Plastic Surgery".—News clipping.

CUYAHOGA

Dr. Tinsley R. Harrison, associate professor of medicine, Vanderbilt University School of Medicine, Nashville, Tenn., and past-president of the American Society for Clinical Investigation, addressed a general meeting of the Academy of Medicine of Cleveland, in the Medical Library Auditorium, Friday evening, September 15, on "The Clinical Approach to the Hypersensitive Patient".—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

"Artificial Fever Therapy" was the subject discussed by Dr. Walter M. Simpson, Dayton, at a meeting of the Mahoning County Medical Society, Tuesday evening, September 19, at the Youngstown Club, Youngstown.—Bulletin.

PORTAGE

Members of the Portage County Medical Society held a meeting at the home of Dr. L. W. Prichard, Ravenna, Thursday, September 7, at which Dr. James G. Kramer, Akron, spoke on "Certain Diseases of Children and Their Treatment".—E. J. Widdecombe, M.D., secretary.

STARK

Speakers at a meeting of the Stark County Medical Society, Thursday evening, September 21, at the Elks' Club, Canton, were Dr. Raymond S. Rosedale, Canton, who discussed "Infections of the Upper Neck", and Dr. Walter K. Stewart, Youngstown, who spoke on "Progress in Medical Economics During the Past Year".—Clair B. King, M.D., secretary.

SUMMIT

Dr. Barney J. Hein, Toledo, Past-President of the Ohio State Medical Association addressed a meeting of the Summit County Medical Society, Tuesday evening, September 5, at the Mayflower Hotel, Akron, on the subject, "Medical Economics as Viewed in Ohio".—Bulletin.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

BELMONT

Relief Director Charles Stullenberger explained provisions for medical care under the new Ohio Poor Relief Act at a meeting of the Belmont County Medical Society, Thursday evening, September 7, at the Kilkenny Inn, St. Clairsville.—News clipping.

TUSCARAWAS

At a meeting of the Tuscarawas County Medical Society, Thursday, September 14, at the Twin City Hospital, Dennison, Dr. F. B. Harrington, Steubenville, spoke on "Phases of Orthopedics".—News clipping.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

"Advanced Heart Conditions" was the subject of a paper presented by Dr. J. W. Camp, at a meeting of the Guernsey County Medical Society, Thursday noon, September 7, at the Berwick Hotel, Cambridge.

Dr. Reo M. Swan spoke on "Significance of Gastric Photography" at a meeting of the society Thursday, August 17.—O. Reed Jones, M.D., correspondent for *The Journal*.

PERRY

Dr. S. W. Obenour, Zanesville, discussed "Hernia", at a luncheon meeting of the Perry County Medical Society, Thursday noon, August 17, at the Park Hotel, New Lexington.—News clipping.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

Dr. C. J. DeLor, Columbus, spoke on "Bile Salts in the Treatment of Biliary Diseases", at a meeting of the Fayette County Medical Society, Thursday, September 14, at Washington C. H.

FRANKLIN

"Medical Service in the Japanese-Chinese War", was the subject of a talk made by Dr. Harry W. Miller, Mt. Vernon, at a meeting of the Columbus Academy of Medicine, Thursday evening, September 18, at the Columbus Gallery of Fine Arts. Dr. Miller recently returned to Ohio after having served as surgeon and chief of staff of the Wuhan Sanitarium and Hospital, Hankow, China.—Bulletin.

ROSS

Twenty-four members of the Ross County Medical Society attended a meeting at the Chillicothe Country Club, Thursday evening, September 7, at which Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association, discussed "Present Status of Medical Care of the Poor".—News clipping.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

MEDINA

The annual summer outing for members of the Medina County Medical Society and their families was held at Bunker Hill, Sunday afternoon and evening, August 27. Following a golf tour-

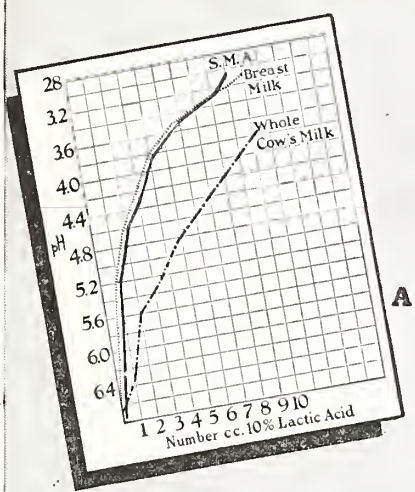
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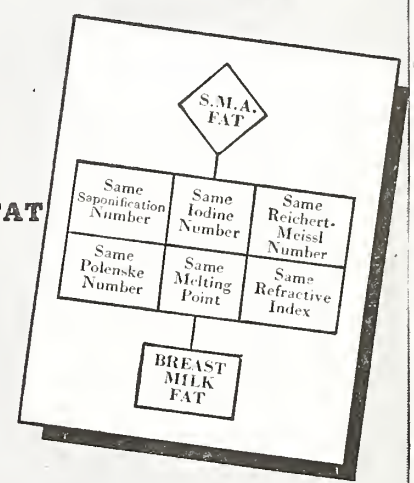
COMPARATIVE ANALYSIS OF S.M.A. AND BREAST MILK

Chemical and Physical Analysis	S.M.A.	Breast Milk
Fat	3.5-3.6%	3.59
Protein	1.3-1.4%	1.23-1.5
Carbohydrate	7.3-7.5%	7.57
Ash	0.25-0.30%	0.215-0.226
pH	6.8-7.0	6.97
Δ	0.56-0.61	0.56
Electrical Conductivity	0.0022-0.0024	0.0023
Specific Gravity	1.032	1.032
Caloric Value: —per 100 c. c.	68.0	68.0
—per ounce	20.0	20.0



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nament in the afternoon, supper was served in the club house.—News clipping.

RICHLAND

Dr. T. L. Bliss, Akron, gave a resumé of the work in the local tuberculosis clinics during the past three years, at a meeting of the Richland County Medical Society, Thursday afternoon, September 14, at the Mansfield General Hospital. The society's tuberculosis committee also gave a report.—L. D. Bonar, M.D., secretary.

Cleveland Academy Board Issues Statement on Medical Care Plan

The Board of Directors of the Academy of Medicine of Cleveland has issued a preliminary statement based on its re-study of the problem of furnishing medical care to the low-income groups on a prepayment basis. The Board will issue additional statements from time to time, showing the progress of its study. These statements, according to an announcement appearing in the September issue of the *Cleveland Academy Bulletin*, are not final or in any sense binding on the membership. They indicate, however, the phases of the ultimate plan which, with or without modification, will be submitted to the membership for discussion and action.

The statement, headed "Re-Study of Principles of Medical Care Plan," reads as follows:

I. Purposes

(a) To continue to bring good medical care within the reach of every citizen of the low income group.

(b) Through the application of prepayment principles to this group to spread the present uneven and frequently burdensome load of the costs of medical care.

II. Objectives

The plan must have as its objectives the following ends:

(a) Rendering a good medical service to those who participate in the plan.

(b) Performing a service to the community.

(c) Safeguarding the professional and economic status of the medical profession.

III. The Income Levels to Which the Plan Should be Offered

In studying the economic levels to be served by a medical care plan, the committee has used figures from the entire country which form a basis for the American Medical Association studies. The information available on Cleveland incomes would indicate that the economic levels in this city do not differ significantly from those in the entire country. For example: a study made by the Cleveland Hospital Service Association of over 500 hospitalized clients shows a division into income levels almost identical with figures compiled by the United States Department of Labor for the entire country.

The population may be divided roughly into three groups:

1. Families with incomes above $2500 (roughly estimated at 15 per cent of the population).

Families with incomes above $2500 are generally self-sustaining and need not be included, because of economic reasons, in any plan.

2. The indigents (roughly estimated at 25 per cent of the population). The indigents are properly a community responsibility. Their medical care cannot be provided for in a self-sustaining plan since they have no incomes or incomes too low to budget for their needs on an unsubsidized prepayment basis.

3. Families with incomes below $2500 and above the indigent level (roughly estimated at 60 per cent of the population). Of this group about three-fourths (or 45 per cent of the total population) have incomes below $1500. The remaining one-fourth (or 15 per cent of the entire population) have incomes between $1500 and $2500.

IV. Arguments

According to data available, it is in the group between $1500 and $2500 that the majority of subscribers can be obtained; and they must be included to provide the numbers necessary to make the plan successful. In "Factual Data on Medical Economics," the Bureau of Economics of the American Medical Association presents Chart No. 29, entitled "Medical Services and Economic Status". People in the economic groups referred to above are considered from the standpoint of need for assistance for both minor and major illness. Members of the group below $1500 have variable needs for assistance for minor illness; but of all the groups, this group has the greatest need for assistance in major illness. Those with incomes between $1500 and $3000 (according to Chart No. 29) are considered for the most part self-sustaining for the costs of minor illness, but need varying amounts of assistance in bearing the costs of major illness.

V. Recommendation

Your Board of Directors recommends that the medical care plan of the Academy of Medicine be limited to individuals with incomes below $2500.

A top level of income for the individuals was chosen rather than a sliding scale for individuals with varying number of dependents because the increased administration and sales costs and the sales resistance would out-weigh any apparent advantages of such a sliding scale.

A CONVENIENT OFFICE TREATMENT FOR TRICHOMONAS VAGINITIS

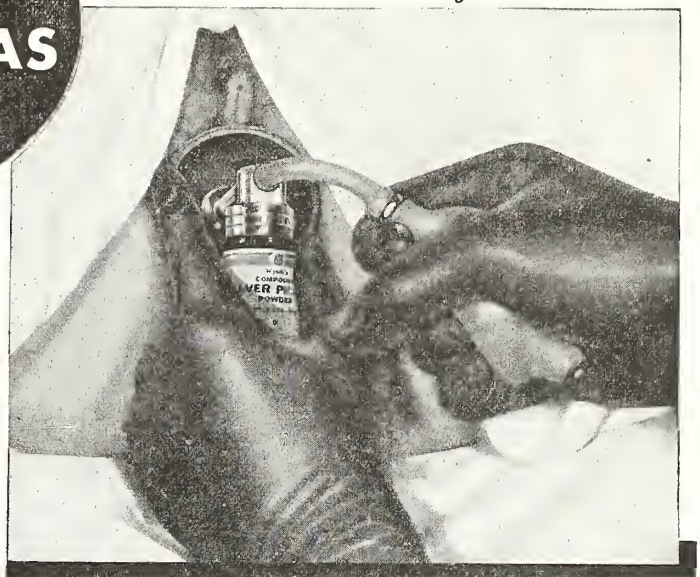
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British Plan for Mobilization of Physicians for War Service

A plan for mobilization of the physicians of Great Britain in the event of war had been agreed upon by the British Medical Association and the Ministry of Health prior to the entry of that country into the European conflict, according to an article in the "Foreign Letters" section of the September 9 issue of *The Journal of the American Medical Association*, by the London correspondent of the A.M.A., dated August 14. The article reads as follows:

"Government plans for the mobilization of physicians in war have been announced by the Ministry of Health. They have been agreed on between the ministry and the Central Emergency Committee of the British Medical Association. The scheme provides for a national hospital medical service for the treatment of casualties. Physicians joining it will assume for a period of three years a definite liability to serve in an emergency. The service will be recruited from physicians other than those already in whole-time employment of the government or the local authorities. There will be two classes of service: Class A physicians will in an emergency be called up for whole-time hospital service with liability to transference to any part of the country. Those required at the outset will be called up as soon as an emergency arises; others will be called up later as required. Class B physicians will be liable to hospital service on a sessional basis in their own hospital area. The scale of salaries in class A areas follows: consultant adviser $7,000, group officer $6,500, medical superintendent of a hospital of 1,000 beds and over $6,000, of 750 beds $5,000, of 300 beds $4,500, officer in charge of surgical or medical division hospital of 500 beds and over $4,750, specialists $4,000, medical officers $2,750, house officers $1,750. The salaries are on a resident basis; if board and lodging are not supplied, an allowance of $500 will be paid in lieu thereof. Class B physicians will be paid $13 a session for consultant and specialist work of two hours' duration up to five sessions in any one week with $10 for other sessions. General practitioners will be paid $8 a session of two hours' duration. Physicians so employed will not wear a uniform but a distinguishing badge. They will be allocated to their wartime positions now. Thus there will be created in peace time an expanded system of casualty hospital staffs which can function automatically at a moment's notice. This will involve allocation to hospital staffs of physicians engaged in private practice, but the British Medical Association has elaborated a scheme for the maintenance in every area of an adequate number of physicians and the safeguarding of the practices of those who are called up."

Candidates desiring qualification in the founders' group of the American Board of Surgery must make application through the office of the secretary, Dr. John Stewart Rodman, 225 South Fifteenth St., Philadelphia, prior to January 1, 1940. In order to be eligible, for this classification, candidates must have limited their work strictly to surgery for at least 15 years prior to January 1, 1937.

Jefferson Medical College Teachers To Present Program at Canton

Distinguished members of the faculty of Jefferson Medical College, Philadelphia, will appear on the program for the Second Annual Postgraduate Day of the Stark County Medical Society, which will be held at Canton, Wednesday, October 11. Dr. George P. Muller, professor of surgery, and President of the American College of Surgeons, will discuss, "The Present Status of Surgical Treatment of Peptic Ulcer". Other speakers and their subjects are: Dr. Martin E. Rehfuss, professor of clinical medicine, "Medical Aspects of Gallbladder Disease"; Dr. Hobart A. Reimann, professor of practice of medicine, "Recent Developments in the Treatment of Pneumonia"; Dr. Brooke M. Anspach, professor of gynecology, "Medical and Surgical Treatment of Pelvic Disease".

Dr. O. R. Clovis, is general chairman of the Postgraduate Day Committee. Chairmen of subcommittees are: Arrangements for Place and Dinner—Dr. R. L. Thompson; Publicity—Dr. J. Edwin Purdy; Concessions and Exhibits—Dr. H. B. Weaver; Projection and Sound—Dr. H. V. Weaver; Welcoming—Dr. Paul Lechlitner; Registration and Tickets—Dr. F. S. Van Dyke; Finance—Dr. C. B. King; Badges—Dr. J. A. McNalley.

The meeting will start at 12 o'clock noon with sessions in the afternoon and evening. The registration fee is $5.00 which includes luncheon and dinner.

Ohio Physicians Take Part in Program of Michigan State Medical Society

Ohio furnished a number of the guest speakers for the Seventy-Fourth Annual Meeting of the Michigan State Medical Society at Grand Rapids, September 19-22. They were: Dr. Edward J. McCormick, Toledo, "Democracy at the Crossroads"; Dr. Henry M. Goodyear, Cincinnati, "Some Practical Points in Diagnosis and Treatment of Otolaryngology of Importance to the General Practitioner"; Dr. Harold N. Cole, Cleveland, "The Importance of Latent Syphilis from the Standpoint of the General Practitioner"; Dr. Thomas E. Jones, Cleveland, "Diagnosis and Treatment of Carcinoma of the Colon and Rectum"; Dr. Henry C. Schumacher, Cleveland, "Psychiatry in the Service of the Schools"; Dr. George Crile, Jr., Cleveland, "Recent Advances in the Diagnosis and Treatment of Thyroid Disease"; Dr. McCormick also addressed the Lion's Club, Tuesday noon, September 19. Dr. Fred M. Douglass, Toledo, was the official representative of the Ohio State Medical Association at a special session on medical service problems.

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The Physician's Bookshelf

Problems in Prison Psychiatry, by J. G. Wilson, M.D., and M. J. Pescor, M.D., *(The Caxton Printers, Ltd., Caldwell, Idaho,* $3.00) is a pioneer book which analyzes the prison population from a psychiatric viewpoint and then attempts to evaluate the influence of imprisonment. It begins with an interesting historical chapter which traces briefly the evolution from places of detention to dungeons for punishment and to the more modern houses of correction. Further chapters deal with a classification of prison inmates into normal, feeble-minded, psychoneurotic, psychopathic, psychotic, and neuropathic. The book then considers such subjects as homosexuality, discipline, and the chronic prisoner. There is an interesting appendix and an index.

This book is well written in clear, understandable language. The chapter describing the psychopathic prisoner is well done; the discussion of the psychoneurotic is rather superficial. The contents generally give the reader a clearer viewpoint about prisons and leave the impression that torture must give way to treatment, that probation is often superior to imprisonment and that the psychiatrist may play an important role.

This book should prove helpful to those confronted with the problems of the criminal. Its material, though interesting, may not be of essential value to the general practitioner.—J. L. Fetterman, M.D.

The Microbe Man. A Life of Pasteur for Young People. By Eleanor Doorly. *D. Appleton-Century Company, New York,* $1.50. Is a fitting presentation of the story of the life of this great scientist who loved young people. In it, you catch the spirit of the man when he said, "My work, my family, my teachers, my country—these are the things I have always loved". It will prove an attraction for most young folks and is an inspiration to all who read it.

Angina Pectoris; Nerve Pathways, Physiology, Symptomatology, and Treatment. By Heymen R. Miller, M.D. *Williams and Wilkins, Baltimore,* $3.25. Will prove of interest to us physicians not only because of the frequency with which we exhibit the malady of which it speaks, but also because it gives us so much we can use daily. It is a clean-cut presentation of the physiological and clinical facts. The author has accomplished his purpose in this monograph to restate and analyze anew, in the light of our present knowledge, the vital problems of this disease.

Clinical Studies in Psychopathology. A Contribution to the Aetiology of Neurotic Illness. By Henry V. Dicks of London, England. *Williams and Wilkins, Baltimore,* $4.75. Are the author's postgraduate lectures first given some five years ago at the Tavistock Clinic. They are truly a course in postgraduate instruction in a very vital subject to all who serve as personal physicians.

Miraculous Healing. By Henry W. Frost, M.D. *Fleming H. Revell Co., New York,* $1.00. A Personal Testimony and Biblical Study. Is not a book about the direct interpretation of God, but one which supports the thesis to which almost all of us subscribe that all healing is divine.

Medical and Physiological Papers Dedicated to Dr. H. C. Hagedorn. *Acta Medica Scand.* Supplement 90. 1938. *Helsingfors.* This dedicatory volume of 454 pages contains 40 articles on metabolic diseases written for the most part in English by world-wide authorities. The United States is represented by Joslin and Sansum who write on diabetes mellitus, Wilder and Kepler who write on "Disturbances of carbohydrate metabolism observed in association with tumors of the adrenal cortex", and Beecher who writes on "Principles of anesthesia for lobectomy and total pneumonectomy". Canada is represented by Jacques, Chartes and Best on "The Administration of Heparin". England is represented by Lawrence, Graham and Ferguson on diabetes mellitus, E. C. Dodds who writes on "The significance of synthetic oestrogenic agents", and Himsworth who writes on "Experimental Atherosclerosis". France is represented by Marcel Labbé on diabetes mellitus. The other authors are from the Scandinavian countries and the subjects of extreme clinical interest relate to the thrombocytopenic purpura, "Extracellular and Intracellular Fluid" by Krogh, obesity, chronic constipation, "Backache and Myeloma", polycythemia vera, essential hypochromic anemia, and myxedema. It is a splendid tribute to a truly great physician.—Robert C. Kirk, M.D.

Nurse in White. By Lucy Agnes Hancock. *(Penn Publishing Company, Philadelphia,* $2.00). The attractions and disillusions of a nursing career are again placed on record. Happily, however, in this book the presentation is less clinical and more interestingly told.

Oh Doctor! My Feet! By Dudley J. Morton, M.D. *(D. Appleton-Century Company, New York,* $1.50), contains many helpful suggestions for the family physician, although it is written by the well-known Columbia anatomist, for laymen. It does not deal with the problems of the orthopedic surgeon. "When your feet hurt, that's

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A Dictionary of Food and Nutrition. By Lulu G. Graves and Clarence Wilbur Tabor. *(F. A. Davis Company, Philadelphia,* $3.50), will prove a handy deskbook for physicians, dietitians, home economists and food producers. It is complete in its food items and the facts of nutrition.

From Head to Foot, by Armitage Whitman, M.D., *(Farrar and Rinehart, New York,* $2.50) is a popular description of the achievements of orthopedic surgery. Its author is the son of the famous Royal Whitman who follows in his footsteps. Since it deals so informatively about infantile paralysis in all of its phases, it has a strong seasonal appeal. Its many other chapters are equally good.

The Clinical and Experimental Use of Sulfanilamide, Sulfapyridine, and Allied Compounds, by Perrin H. Long, M.D., and Eleanor A. Bliss, D.Sc., *(Macmillan Company, New York,* $3.50) brings up to date the whole subject in a manner which we of the O.S.M.A. would expect after hearing Dr. Long at our 92nd Annual Meeting. Each type and form of disease in which these new drugs have been found to be of value is taken up in detail. It is an extremely practical presentation with tables of dosage and surveys of the significance of the various toxic effects, together with directions for their prevention, early recognition and treatment, with the great progress medicine has made in this direction. Every physician must have a copy of this book.

A Virtuous Woman. Sex Life in Relation to the Christian Life, fourth edition. By Oscar Lowry, a Bible teacher and evangelist *(Zondervan Publishing House, Grand Rapids, Michigan,* $1.00), is an unscientific but deeply religious presentation of the problem which well serves its purpose to those who will buy it because of their faith in its author. Hence it is not to be condemned even if it does not fit into our present day sophistication.

Baldness. Its Cause and Prevention. By Benj. L. Dorsey, M.D. *(DeVorss and Company, Los Angeles, California),* has for its thesis that the common garden variety of baldness is due to the shape of the skull and the consequent compression of the temporal arteries. Nothing can be done when the hair follicles have been starved to death. The emphasis, therefore, is on prevention. "If every little boy would have his skull carefully measured with calipers and if it was found that the widest part was above and in front of the ears, never, under any conditions, permit tight hat bands to compress his temporal arteries. He would never be bald." The book also contains much advice on what to do and not to do for sickly hair.

Recession. By Milton Reiser. *(Meador Publishing Company, Boston,* $2.00), is the answer to those who talk of the "60 families". It supports our present system and asserts that every one of us would be better off if we had less government for which to pay, and more rich men present in our economy. While the author is not temperate in his statement, he is no press agent for the Republican party. Withal, it is a stimulating book which has warmed your reviewer's heart.

You Can Stay Young, A Handbook of Health by Daniel W. Josselyn *(Frederick A. Stokes, New York City,* $1.50) is a well written book

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Priests of Lucina; The Story of Obstetrics by Palmer Findley, M.D. *(Little Brown & Co., Boston,* $5.00) is a history of childbirth and obstetrics from the earliest times presented against a background of the general history of medicine and the lives of doctors who have contributed to the development of the branch of our Art. In this way the author places obstetrics within the perspective of universal history. The sketch of Marmduke Wright, M.D., who was a member of our own society and eminent teacher and practitioner in Columbus and later in Cincinnati gives a feeling of pride. It is a book that every student of childbirth and of medical history will want in his own library.

The Good Doctor, by Anne Stewart *(Gramercy Publishing Company, New York,* $2.00) is the tale of a sincere physician who followed Osler's advice to take medicine as his sole mistress and foreswear women. His end was the usual one and not as he planned at all. It makes good Summer reading.

Cancer of the Colon and Rectum. By Fred W. Rankin, M.D., and A. S. Graham, M.D. ($5.50, *Charles C. Thomas, Springfield, Ill.)* is an exposition of the experience of the authors, correlated with the recorded work of other surgeons throughout the world. To us who have heard them speak at our annual meetings and have followed their work nothing more need be said. To others, may we say that it is an outstanding monograph.

Treatment by Diet. By Clifford J. Barborka, M.D. ($5.00, *Lippincott, Philadelphia)* is the fourth edition in five years of this monograph which has become a necessity to the reviewer and will prove most helpful to anyone needing an up-to-date book on diets.

A Textbook of Surgery. By American Authors. Edited by Frederick Christopher, M.D. ($10.00, *W. B. Saunders Co., Philadelphia)* is the second edition of this text which has been so warmly received by the American profession. The revision has been as complete as is necessary and the text as it now stands will be even more widely welcomed than ever before. Three of our members have contributed to this admirable text—George M. Curtis of Columbus, Maxwell Harbin of Cleveland, and Mont R. Reid of Cincinnati.

Diseases of the Nose and Throat. By Charles J. Imperatori, M.D., and H. J. Burman, M.D. ($7.00, *J. B. Lippincott Company, Philadelphia)* is recognized as one of the best texts in any language on the subject It is a guide for all who are interested—nonspecialist as well as specialist. It is representative of the skill and experience of these two master teachers.

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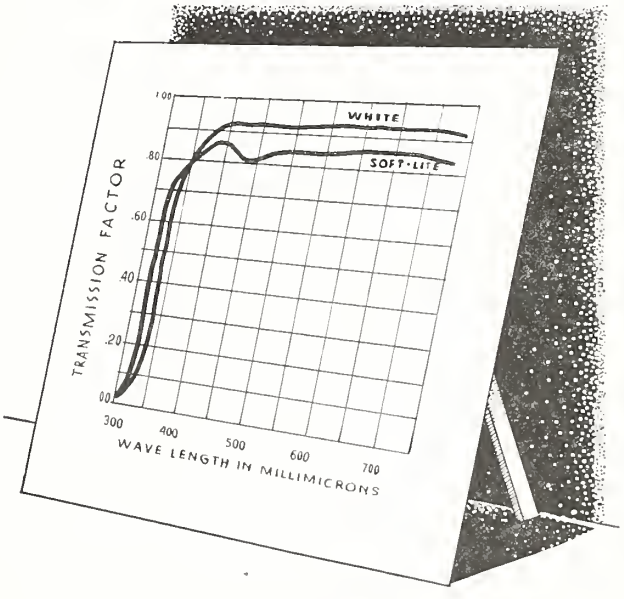
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Types, Levels, and Irregularities of Response to a Nursery School Situation of Forty Children Observed With Special Reference to the Home Environment. ($1.25, *Society for Research in Child Development, National Research Council, Washington, D. C.)* by Eleanor Slater et al., deals with the adjustments of these children between the ages of two and three years, three months, and presents data which is most interesting to all who are interested in children and which should prove helpful to all who are working in this field.

Life and Letters of Dr. William Beaumont. By J. S. Myers ($5.00, *C. V. Mosby Company, St. Louis)* has long been out of print but the publishers now give us a beautiful new volume. This is a reprint of the 1912 edition with a delightful chapter added by Professor A. C. Ivy. Every physician will want a copy and it makes a beautiful gift to any friend interested in any phase of biology.

A Textbook of Obstetrics—With Special Reference to Nursing Care. By C. B. Reed, M.D., and B. J. Cooley, R.N. ($3.00, *C. V. Mosby Company, St. Louis)* is based on a well thought out and executed plan by which a clear picture is given of modern obstetrics and the part that a nurse should play. A brand new book which should prove most useful to the student nurse and makes good reading for us physicians who have not thought of delivering a woman of a baby for these 25 years but find it worthwhile to take a few hours off to read an interesting and not too technical book on how they are doing it today. And it is printed on a green tinted glazed paper which makes it mighty easy on the eyes.

The Patient as a Person—a Study of the Social Aspects of Illness. By G. Canby Robinson, M.D. ($3.00, *The Commonwealth Fund, New York City)* is the study by a well known physician of the social, economic, and family relationships of 174 unselected hospital patients. It is a sad commentary that a book like this has to be produced to bring out a point that every one of us knows, i.e., the patient must be treated as a whole. It is a good thing, however, because it should drive home to the uplifters in language that they can understand that there are unreplaceable values in the close personal relationship that obtains between his patient and a good personal physician that no "Government doctor," no matter how good, can ever supply.

Cancer of the Breast and Cancer of the Uterus. By Marion Ellsworth Anderson, M.D. *(The Franklin Press, Clinton, Iowa)* is the second edition of an interesting attempt to present the facts to laymen mostly by means of pictures. It will prove helpful to all who are trying to do this.

Clinical Pathological Gynecology. By J. T. Witherspoon, M.D. ($6.50, *Lea & Febiger, Philadelphia)* is the result of a series of lectures based upon the study of a wealth of pathologic material. It is well done on an anatomical grouping and deserves a place in the "postgraduate library" of every man in general practice as well as those specializing in the field.

The Chosen Baby. By Valentina P. Wasson. ($1.50, *Carrick and Evans, New York City)* will help foster parents with their biggest problem, i.e., how to tell their adopted child about his adoption before the kids in the alley beat them to it. No foster parent has ever succeeded in keeping this secret so the child must be told and that promptly. Dr. Wasson has written this book to be read by the foster parent to the child.

Practice of Allergy. By Warren T. Vaughan, M.D. ($11.50, *C. V. Mosby Company, St. Louis)* is a most complete work covering all phases of the subject in an excellent way. It has been written for the serious student of the subject and

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as such represents the latest and best book of reference. One thousand and eighty-two large pages packed full of useful information for which all of us who are primarily interested in this subject are deeply indebted to its author. For those who are just beginning to look into this phase of internal medicine, many hours of research through the literature would have been necessary to gather the facts found on almost every page of this excellent monograph.

Community Health Organization. Edited by Ira V. Hiscock, Professor of Public Health in Yale University ($2.50, *The Commonwealth Fund, New York City)* has long been a standard administrative handbook and this revision brings it up to date.

Lorain County Physicians Hosts To New Eleventh Councilor District

Members of the Lorain County Medical Society were hosts to their colleagues of the new Eleventh District of the Ohio State Medical Association, Wednesday afternoon and evening, September 13, at the Spring Valley Country Club, Elyria. Approximately 60 physicians were present. Dr. Benj. F. Carlson, Lorain, president of the Lorain County Medical Society, presided at the dinner session which followed the golf tournament. Speakers on organization matters included Dr. Parke G. Smith, Cincinnati, president of the State Association; Dr. S. V. Burley, Lorain, councilor for the Eleventh District; Charles S. Nelson, executive secretary, and Richard Aszling, director of the Bureau of Public Education. Accepting an invitation extended by Dr. James K. Durling, Wadsworth, president of the Medina County Medical Society, it was voted to hold the next district meeting in Medina.

Data on Public Assistance in Ohio

A summary of public assistance in Ohio recently published by the Division of Public Assistance of the State Department of Public Welfare, reveals the following data on recipients of various forms of assistance durng the month of July, 1939—Aid to dependent children: 10,403 families, including 29,885 children; total payments, $400,014.74; average payment per family, $38.45. Aid to the blind: 3,954 individuals; total payments, $78,122.12; average payment, $19.76. Aid for the aged: 117,739 individuals; total payments, $2,661,560.21; average payment, $22.61. General relief: 95,536 cases; total payments, $1,578,562.77; average payment, $16.52. Works Progress Administration: 181,116 employees; wages, $8,877,813; average wage, $49.02. National Youth Administration: 7,921 employees; total wages, $109,558; average wage, $13.83. Civilian Conservation Corps: 14,291 enrollees; earnings, $1,000,370; average earnings, $70.

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METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

1. The Determination of Vitamin D Activity

● About fifteen years ago it was clearly established that there could be present in certain foods or biological materials some substance which possessed antirachitic potency. Subsequently this "antirachitic factor" became known as vitamin D. Today, we know that at least ten sterol derivatives may exert antirachitic effects closely comparable to those of the originally discovered vitamin D (1).

Recognition of the existence of the antirachitic vitamin naturally stimulated investigation of methods whereby this dietary essential could be quantitatively estimated. Steady advances in knowledge of the causes and effects of rickets brought gradual improvements in these methods. Consequently, there are now available several techniques for the quantitative determination of vitamin D in foods or other biological materials.

The first and probably most widely employed method for estimation of vitamin D is by means of the so-called "line test" (2). In this technique as now employed (3), young rats are confined for 18 to 25 days to a diet conducive to development of rickets. These periods of time, with proper handling and confinement of the animals, are sufficient to induce a definitely rachitic condition. The rachitic rats are then properly grouped with respect to negative control groups to receive no supplements to the rachitic ration; positive control or reference groups to receive graded doses of some standard reference material; and "assay groups" to be given graded doses of the material under test. For the next 8 days the animals are fed daily doses of the proper supplement, either assay or reference material. No supplements are fed on the ninth and tenth days.

On the eleventh day the animals are sacrificed and either the proximal end of the tibia or the distal end of the radius or ulna dissected out, sectioned, cleaned and finally immersed in silver nitrate solution. By double decomposition reaction, silver salts deposit where calcium is present in the metaphysis of the bone. When exposed to light these silver salts are reduced and form a dark line indicating the extent of calcium deposition. The experienced technician can estimate the degree of healing from rickets by the continuity and area of the line. By comparison of the results obtained on the various groups of animals, a quantitative expression of the antirachitic activity of the material under assay may be obtained.

A second method for evaluating vitamin D activity is that involving determination of "bone ash" (4). In this technique, final estimation of the degree of bone calcification—and thus the antirachitic potency of the substance under assay—is made by chemical analysis of specific bones of the experimental animals. A third assay method (5) is that involving roentgenological examination of certain bones. Comparisons of the bone densities of the various experimental animals serve as a basis for estimating the degree of healing from—or prevention of—rickets and hence permit determination of the vitamin D activity of the material under test.

Common foods as they naturally occur can hardly be considered as food sources of vitamin D. However, as exceptions, certain foods of marine origin (6) might be mentioned which consistently contribute small but definite amounts of the antirachitic factor to the diet. In addition, development of various means of fortifying foods with vitamin D—particularly those foods of importance in infant and child feeding—has made available other food sources of the vitamin (7). Among the many varieties of commercially canned foods will be found products of both types, which, when properly used or supplemented, should prove of value in obtaining an adequate intake of vitamin D, particularly by infants and children.

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(1) 1938. J. Am. Med. Assoc. 110, 2150.
(2) 1922. J. Biol. Chem. 51, 41.
(3) 1936. The Pharmacopeia of the United States of America, Eleventh Decennial Revision, 482.
(4) 1923. J. Biol. Chem. 58, 71.
1924. Ibid. 61, 405.
(5) 1928. Biochem. J. 22, 135.
(6) 1938. J. Am. Med. Assoc. 111, 528.
(7) 1937. J. Am. Med. Assoc. 108, 206.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-second in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.

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The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

News Notes

Ashland—A new obstetrical table has been presented to Samaritan Hospital by Mrs. T. W. Miller, Sr.

Circleville—The local council has been requested by the Pickaway County Medical Society to submit a $20,000 bond issue to the electorate, for the purpose of remodeling Berger Hospital.

Circleville—Dr. Howard E. Jones observed his 86th birthday August 21.

Cleveland—Dr. W. C. Tuckerman is convalescing in Glenville Hospital from injuries received in an automobile accident in California, July 30.

Coshocton—A rough-hewn boulder with a bronze plaque has been erected at Berlin by the Berlin High School Alumni Society as part of a monument to the family of the late Dr. Peter Piersol Pomerene, pioneer Holmes County physician, father of Dr. Lister Pomerene, retired Coshocton physician; Dr. Myron B. Pomerene, Millersburg, and the late Senator Atlee Pomerene.

Dayton—Dr. Orville M. Wright has joined the teaching staff of the Vanderbilt University School of Medicine, Nashville, Tenn.

Delaware—Dr. John Wesley Page, Jackson, Mich., and formerly athletic director at Ohio Wesleyan University, died recently.

Delaware—Dr. G. F. Moench, Mt. Victory, is the new health commissioner for the combined Delaware city and county health districts.

Delaware—Dr. Harry E. Caldwell has been named regimental surgeon of the 166th Infantry of the Ohio National Guard, with the rank of major, succeeding Dr. H. O. Whitaker, Dublin, retired.

Dorset—Dr. J. L. Hurst has been re-appointed health commissioner of Ashtabula County.

Dover—An address on "Venereal Diseases" was made by Dr. Max Shaweker, at a recent district meeting of the Ohio State Nurses' Association, at Union Hospital.

Elyria—A reception was recently held in the First Congregational Church in honor of Dr. and Mrs. E. H. Evans, who are returning to missionary duties in Vengurla, India.

Elyria—Dr. G. E. French, city health commissioner for 38 years, resigned recently.

Hamilton—Officers of the Fort Hamilton Hospital staff are: Dr. Merle Flenner, president; Dr. Daniel M. Skinner, vice-president; Dr. Neil Millikin, secretary-treasurer. They, with Dr. Malcolm O. Cook and Dr. Corliss R. Keller, serve on the advisory board.

Litchfield—Dr. Walter H. Scudder, a practicing

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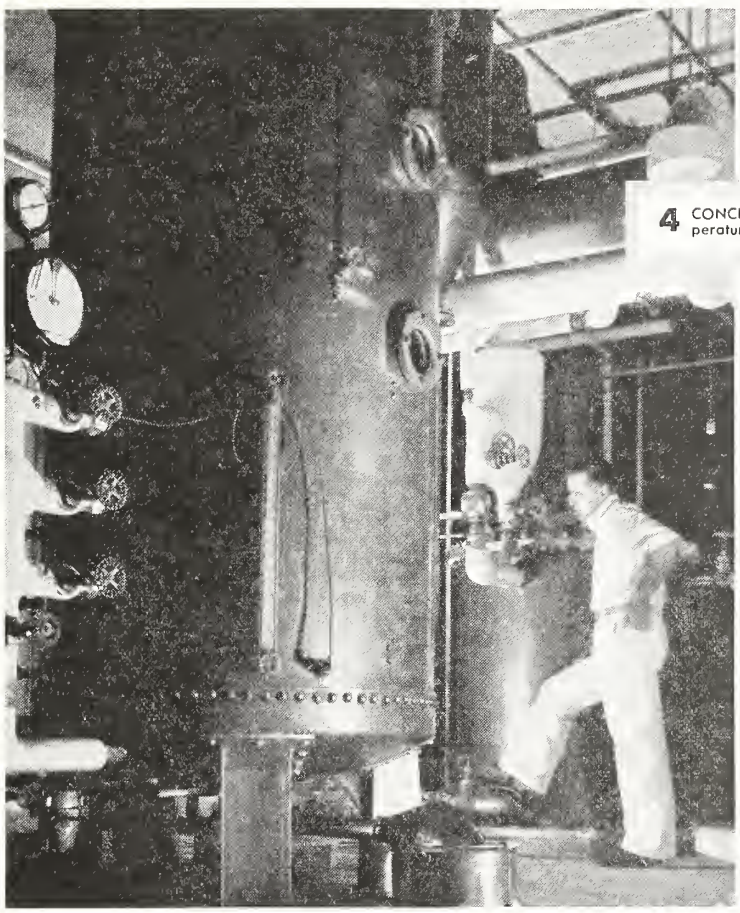
1 ASSAY—The acceptability of every lot of raw material is determined by biologic assay in the Nutrition Laboratory.



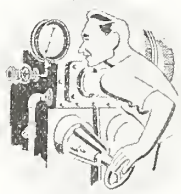
2 EXTRACTION—An aqueous solvent removes the vitamin content from the raw material under carefully regulated conditions.



3 FILTRATION — The vitamin-containing solvent is separated from the residual, inert solids by filtration.



4 CONCENTRATION—Vacuum distillation at low temperature removes the major portion of the solvent.



5 DRYING—High vacuum, drum-type dryers remove the last of the solvent and present the product in solid form.



6 CONTROL—The dried product is biologically assayed for vitamin content.

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physician here for 48 years, recently took his first airplane ride.

Marion—Dr. C. J. Altmaier is recovering from serious injuries received in an automobile accident in August.

Port Clinton—Bids are being asked on the new Magruder Memorial Hospital, which it is expected will be completed by next summer.

Ottawa—Dr. Wilbur H. Light has been appointed to membership on the local Board of Education.

Quincy—Owing to ill health, Dr. F. E. Detrick has retired from the practice of medicine.

Ravenna—An address on "Cancer" was made by Dr. Bernard H. Nichols at an inter-city Rotary Club meeting at Ravenna, August 28, attended by 130 Rotarians from Ravenna, Kent, Garrettsville and Hudson.

Salem—Dr. Raymond H. Holzbach recently returned from Europe, when a postgraduate course in surgery which he was taking at the University of Edinburgh, Scotland, was interrupted by the war.

Springfield—Dr. S. F. Crynes, Columbus, has been appointed pathologist at City Hospital.

Zanesville—Dr. H. T. Sutton, veteran local physician, and one of the founders of Good Samaritan Hospital, has been confined there with a fractured left hip.

Zanesville—New officers of Good Samaritan Hospital staff are: Dr. W. L. Cruise, chief; Dr. William Haake, vice-president, and Dr. R. S. Martin, secretary-treasurer.

Interesting Court Decision

There is no legal distinction between "attending" or "treating" by a physician, the Court of Appeals of Wood County recently decided in remanding for a new trial a case appealed by a life insurance company following decision of a Court of Common Pleas in favor of the beneficiary of a life insurance policyholder. (61 Ohio App., Ohio Bar, August 28). Syllabus of the decision of the Court of Appeals follows:

"In a suit on a policy of life insurance, defended on the ground the insured falsely answered questions propounded in the application for insurance as to whether he had recently been 'attended' by a physician, it is error for the court to make a distinction between the words 'attending' and 'treating' in its charge to the jury, and on cross-examination of a physician, to limit his testimony to his having 'attended,' rather than 'treated' the insured. There is no such differentiating legal significance between 'attending' and 'treating' as would make objectionable any questions so asked."

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The Ohio State Medical Journal

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Vol. 35 November, 1939 No. 11

JONATHAN FORMAN, M.D., *Editor*

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Preoperative and Postoperative Care

ELLIOTT C. CUTLER, M.D.

IT is good to come back to Ohio, and I am greatly indebted to your officers for this opportunity, for it allows me to thank innumerable colleagues who once befriended and gave assistance to me. In the words of the old Romans, not the new (God forbid that I utilize their ideas), "Te salutamus!" The Cleveland men who are here, will know how difficult it was to understand the strange young individualist brought from Boston to the old Lakeside Hospital in 1924. But even these friends cannot know my reactions to being arrested daily in my automobile for going around corners the wrong way, or to that great occasion when I had to go to Columbus to take the examination before the State Board of Medicine. What a day! The examiners and I disagreed on practically all questions; in the anatomical question as to the localization of the speech centers; in the genito-urinary question as to the common cause of death in patients with fracture of the spine and complete paralysis, I holding that the doctors killed the majority of these patients by infecting the urinary pathways through improper catheterization. Obviously, Dr. Upham, Dr. Scudder, and Dr. Platter thought I was a strange creature to court their might thus. Then there were the problems of holding the old Lakeside Hospital from slipping into Lake Erie and those battles over the erection of a new Lakeside Hospital. This was before the "depression" and the present administration in Washington, and each staff member wanted an institute of his own. By generous cooperation and the setting aside of personal ambition the present Lakeside Hospital was erected. It is in my mind the best hospital in our country, ample in size for its task and beautifully constructed for the purpose. It is a tribute to the departmental heads of those days. Some of those gentlemen are with us here today and to them and all members of the Lakeside Hospital staff of those days I now pay special homage! I thoroughly enjoyed it all, and my family look upon Ohio as one of the brightest spots in our country, peopled by a generous and kindly folk.

My title is preoperative and postoperative care. It might well be the selection of patients for surgery, for I shall attempt to implicate not only the surgeon but the physician in this presentation. We are wont to think that the sins of the surgeon are those of commission, and the sins of the physician those of omission. For example, if the surgeon removes the appendix and the

The Author

Dr. Cutler, Boston, Massachusetts, is a graduate of Harvard University Medical School, 1913; honorary doctorate, University of Strasbourg, 1938; member American Surgical Association, American Society for Clinical Investigation, American Association for Thoracic Surgery, American College of Surgeons, Society of Clinical Surgery, International Society of Surgery, Federation of American Societies for Experimental Biology; surgeon-in-chief, Peter Bent Brigham Hospital, Boston; Moseley Professor of Surgery, Harvard University Medical School.

Read before the Second General Session, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3-4, 1939.

patient dies, even the family can see the role played by the surgeon in their calamity; but should the physician fail to use sulfapyridine in a patient with pneumonia, who would relate the omission to the fatality? Further, is it not true that often the physician demands surgery at the hands of a surgical colleague who, rather than lose the good will of his source of supply, yields his better judgment and shoulders a hopeless risk? Such a physician may be driven by the insistence of the family that something be done. Again there is the insatiable curiosity of some physicians. They must have an exploration. And American surgical statistics mount up unreasonably. To be sure this is offset by the all-too-frequent removal of normal parts from normal people in whom there is almost no risk. The chronic appendix and the chronic gallbladder are a sore temptation to the surgeon. But we must remind you that it takes one hundred of such cases to offset one mistake of the other kind!

Surgery is a dangerous means of therapy. No patient should be put to this risk unless there be adequate cause. And when the risk must be taken, every safeguard must be set up in advance of the ordeal. Only with this attitude can modern medicine and surgery progress. And it is not only a question for the surgeon, for the physician who advises surgical therapy must be equally able to appraise the risk before he instils unwarranted hope in his patient and the family. This is a responsibility we must shoulder jointly.

BEFORE ASEPSIS

A curiosity into the beginnings of my art led me not long ago to examine what I call "The Darkest Days of Surgery," being those days between the discovery of anesthesia and the advent of bacteriology. One had a right to expect that, once man was given anesthesia, the surgeon would pry into hidden parts, unused to bacteria, and thus create havoc in his patients. The early records at the Pennsylvania Hospital in Philadelphia and the Massachusetts General Hospital in Boston do not entirely support this hypothesis. Although the amount of surgery in the Massachusetts General Hospital was increased four times from 1845 (the year before the advent of ether) to 1855, the postoperative mortality dropped from 7 per cent to 3.4 per cent. This doubtless represented more surgery in simple cases heretofore non-surgical because of the fear of pain. However, the degree of infection in all wounds became a more important factor as is seen by the rise in the number of deaths attributable to infection, i.e., from 16 per cent to 25 per cent. Of chief interest was the beginning of elective surgery, for it is this field which has dominated the rise of modern surgery.

The advent of anesthesia introduced a new element into surgical practice, for patients could be persuaded to accept surgical treatment for conditions other than those which were of dire necessity. Obviously before the days of anesthesia no patient would accept a surgical ordeal which entailed tremendous suffering, unless he was in great pain or realized the inevitable calamity if therapy were not carried out. When the patient knew that he could be rendered unconscious, it was a far easier task to persuade him that the lesion should be removed early before its serious consequences were manifest.

ELECTIVE SURGERY

Later when asepsis became understood, another great obstacle to a surgical operation was eliminated, and the era of elective surgery commenced. During this time the training of the surgeon was chiefly in anatomy, and little regard was had for other than the anatomical relations of the part to be attacked. Gradually, however, it became apparent that the morbidity and mortality rates were still alarming and that there were physiological as well as anatomical reasons wrapped up in the failure or success of surgical procedures.

Any discussion of the preoperative study and care of the patient makes it very clear that the chief considerations which have to do with the patient before he is submitted to a surgical ordeal are of a physiological nature. To be sure, there are two great groups of surgical patients, those who are **poor risks** and those who are **good risks**; but just because a patient is a good risk is no reason for neglecting the proper preoperative treatment which would render him a still better risk. We can perhaps do very little in the way of lessening the risk of the emergency case as opposed to a case in which the operation is one of election, but even in the emergency case some benefits may accrue from a proper evaluation of the patient's physiological status as contrasted with his anatomical status. The ideal considerations surrounding a satisfactory surgical risk permit a patient to come to operation with **the tissues adequately supplied with fluid, the food reserves in their normal state, the metabolism adjusted as perfectly as it may be, the intestines working normally, the circulation at its optimum level, and a nervous system as undisturbed and peaceful as in daily life.**

Examples of the dangers attendant upon surgery in patients who are desiccated or whose food reserves are impaired are frequently seen. Consider a patient with chronic obstruction at the pylorus due to long-standing ulcer with cicatrization, or a patient with obstruction at the ileocecal valve from cancer of the cecum. If the vomiting has occurred over a long period of time, the relation of plasma to cell volume in the blood may be seriously changed, the urine concentration is high, alkalosis appears from loss of chlorides, and even the relation of tissue protein to plasma protein becomes dangerously altered. All these

untoward changes may be modified or reversed by proper preoperative therapy and the risk of surgery tremendously reduced. When we consider surgical intervention in individuals with an unsuspected high basal metabolic rate determination we court the disaster of a postoperative thyroid storm. This thyrotoxic condition may remain unsuspected until the patient, anesthetized, reaches the operating room. A glance at the alarming rise in pulse rate and pulse pressure as seen on the anesthesia chart will certify to the diagnosis. This is the hardest task for the surgeon, to be all prepared with a full team at the table and then to call off the planned surgical procedure. But this must be the attitude of the conscientious surgeon. There is no place in American medicine today for the individual who will take any unnecessary risks with the lives of others. And when we consider surgery in individuals with an impaired circulation, we must expect pulmonary disabilities, embolism and the other sequelae to surgery which depend in part from this circulatory failure. Here is a special field for the assistance of our medical colleagues in our great responsibility. Much can be done before the ordeal to diminish the risk in such cases.

Only 30 years ago it was customary to withhold water and food for at least a day before the surgical ordeal and also to purge the patient deliberately. This preparation was based on the assumption that postoperative vomiting and distention were less likely to occur if the intestines were empty. At that time the dangers of dehydration and starvation, and the actual condition both of the inervation of the gut wall and of the intestinal contents after purgation were not understood. The importance of a normal level of the constituents in the blood serum was unknown, and satisfactory tests for blood volume, circulatory efficiency, the basal metabolic rate, and the function of the autonomic nervous system were not established.

PREOPERATIVE CARE

It is not our purpose to enter into a detailed discussion of all these matters, but it is wise to emphasize that a previously normal patient who suddenly experiences an accident of physical nature, such as rupture of a duodenal ulcer, and who requires immediate surgical therapy without preparation frequently suffers the minimum of postoperative difficulties. Conversely it is well recognized that a long period of hospitalization before the surgical operation, particularly if it necessitates bed rest, is undesirable. Also we must recall that certain types of disease present a more serious risk than others. It is recognized that patients with exophthalmic goiter are a grave responsibility, and experience has shown that such patients do better if they are as little disturbed from their daily routine as possible. Thus it is customary to make no special local preparation for them the day before or the morning of the operative ordeal. These examples seem to indicate that the less preparation, the better the result; and they should at once put an end to preoperative preparations which in any way disturb the patient from his routine of living. The fact that a patient with inguinal hernia is a simple, safe risk, and can tolerate with safety enemata, special preparation of the operative field, a shift in diet, and a period of bed rest does not justify an arduous and annoying preparation. There can be little doubt that the sins of commission are just as great in this relation as the sins of omission. This introduction should serve to re-emphasize the great natural law we all should follow—videlicet, that nature tends to repair and heal all of the lesions to which man is subject and that the doctor should devote his energies chiefly to assisting nature in her way, and that conversely he should not attempt to do anything arbitrarily or without guidance from nature.

SPECIAL INDICATIONS

In a presentation of special indications for preoperative and postoperative care it seems wise to divide the material into three major groups, each of which presents certain general problems: (1) infants and children, (2) adults, and (3) the elderly.

1. In the youngest age group the rapidity of reaction is characteristic and often alarming. One sees explosive response to infection, a greater imbalance with restriction of the usual fluid and food intake, the danger of long hospitalization as regards susceptibility to infection, poor resistance to trauma, the necessity for avoiding pain with dressings, et cetera.

2. With the adult group the surgeon will find his safest field, though the addition of sex life and its profound physical and mental ramifications must be given thorough consideration.

3. The elderly will always demand a longer period of preoperative observation and study than the other groups. In this group the aging process has already affected important viscera. The circulatory system in particular must be carefully appraised, and the anesthesia and type of procedure adjusted to its defects. Thrombosis constitutes a major risk in this group, and every attempt must be made to diminish the danger of this occurrence. Digitalization should be considered in any patient over 50. A long period of rest in bed before surgery inevitably reduces the circulatory rate and the general tone in this important system, and should always be avoided when possible. During the operation special care must be given to the great venous channels, and after the operation every attempt must be made to avoid circulatory

congestion both general and local. Frequent change of position is of assistance and, indeed, is an essential part of the care of aged people. This is best accomplished by limiting such patients to short periods in bed irrespective of the procedure. Where early activity is planned, abdominal wounds should be closed with many tension sutures, either silkworm-gut or wire, including all layers so that there may be less danger of wound rupture and evisceration. Habits of food and fluid intake and of bowel movements must be carefully appraised and continued without deviation where possible. Obviously the function of the kidneys and the physiological status of the lungs should be measured, and every attempt made to rule out and improve secondary pathological entities, such as diabetes and anemia, so frequently present in old people.

POSTOPERATIVE CARE

This brief recital should emphasize the importance of the preoperative study. It is not the purpose of this paper to enter into a detailed discussion of special preoperative considerations, though I should like to point out that each separate disease suggests special tests and studies. Thus, patients with cardiac, pulmonary, renal, or liver disease require certain studies and the most suitable and careful selection of anesthesia. Patients with anemia, diabetes, malnutrition, dehydration, and obesity need correction of their abnormality before a surgical ordeal. I am anxious only to point out that before surgery each patient must be brought as near as possible to normal by proper remedial methods, and that the procedure and the anesthetic must be carefully considered so that no unnecessary risk is incurred.

Considerations of postoperative care are further divided into those of a general and those of a special nature. Following operation, there is the problem of adequate nourishment and sufficient fluid intake. The latter may be readily cared for by giving, either intravenously or subcutaneously, 5 per cent dextrose in isotonic salt solution, normal saline alone, or distilled water if the electrolyte balance requires this. Sugar solutions up to 10 per cent have the additional value of providing a small amount of nourishment and may be given intravenously with safety. In diabetic patients the sugar must be covered with insulin. The amount of fluid to be given depends upon the amount of preoperative dehydration; the drainage, i.e., loss through colostomies, bile fistulae, et cetera; the amount of blood lost during the procedure; and the loss through sweat and respiration. Moreover, the loss through the skin and the respiration varies with the temperature and is increased under general anesthetics. It is desirable in a normal person to have a renal output of about one thousand cubic centimeters a day. The average "insensible perspiration", i.e., water lost through respiration and through the skin, is about one thousand cubic centimeters a day. If there is fever, more is lost. A reasonable intake in a normal person then would be two thousand cubic centimeters a day. Following a major procedure under general anesthesia, about three thousand cubic centimeters is required to maintain the fluid balance. With fever the intake must be increased, but due regard must be had for the general condition of the patient. In decompensated heart disease too much fluid may embarrass the circulation. When there is increased intracranial pressure, dehydration is desirable. Food intake is of less importance in the adult and aged than in children, but must not be neglected. Proper fluid and food intake is the method by which chemical derangements, such as acidosis, alkalosis, diabetes, et cetera, are avoided. If there has been great blood loss, transfusion is obviously the best method of restoring both the fluid and food reserves; but the surgeon should not habituate himself to this remedy lest he become lax in his attention to hemostasis. It would be wiser if he looked upon postoperative transfusion as a criticism of his technical ability. Certainly transfusion is a useful therapeutic agent, essential in certain disorders and most valuable in preparing the patient for a major ordeal, but its use following a surgical performance is at least suggestive that a more careful technique would have made this unnecessary.

SEQUELAE

Many undesirable sequelae, which so frequently occur in the postoperative course, may be avoided or minimized by conscientious heedfulness to the nursing care of the patient. First, it is the responsibility of the surgeon to see that his patient is carefully lifted from table to bed. Great attention should be given to unnecessary buckling of the patient's spine in his relaxed condition. The optimum position in bed depends upon the individual case. Patients with difficulty in swallowing following operations about the mouth should be in bed face down, and in some cases are still better protected from the insufflation of material in the mouth if the foot of the bed is elevated. Moreover, if a long procedure has been carried out in the prone position, this position should be maintained until the patient is entirely conscious. Experience has demonstrated that major shifts of position, such as turning a patient face up when he has adjusted himself well to the face down position are undesirable. The thoughtful surgeon will not neglect to flex the thigh of the patient whose simple inguinal hernia has just been repaired. Such flexion at the groin diminshes the tension on the newly placed sutures, aids relaxation, and thereby assists in the healing process. The immediate postoperative posi-

tion should be considered an essential part of the best surgical treatment. This is one of the most difficult responsibilities to fulfill since the busy surgeon is chiefly interested in his "next case". Yet on this simple happening hangs many a case of "aspiration pneumonia" or postoperative evisceration.

NATURE OF TRAUMA

Once the convalescence has commenced and the postoperative discomforts occur, the reasons for correct preoperative preparation and meticulous surgical technique become manifest. Postoperative complications may be etiologically divided according to the nature of the trauma. Thus one can speak of those which arise from (1) mechanical (surgical) trauma, (2) infectious trauma, (3) chemical trauma, and (4) psychic trauma.

Under **mechanical trauma** would fall the greater number of complications. The more important of these are (a) those due to injury to blood vessels, such as hemorrhage, shock, embolism, infarction, and indurated wounds; and (b) those due to injury to the nervous system, such as that form of shock supposedly due to stimulation of nervous tissue, the less serious injuries which result in dilatation of hollow viscera (stomach, intestine, and bladder), and the late sequelae caused by pressure of a scar on a nerve as seen in patients with causalgia and tardy paralysis.

Under **infectious trauma** would fall (a) those complications attendant upon a local infection at the site of operation (wound infection) whether the organisms were introduced at operation or merely disseminated in the wound from an already existent focus, and (b) those complications due either to the distant dissemination from the wound (pyemia, abscess of the lung, septicemia) or to the flare-up of distant infection, which had been present but inactive until the operation reduced the existing local or general immunity and allowed such infection to progress. In the latter group might logically fall the flare-up of old tuberculous lesions, a dormant but chronic pyelitis, or arthritis.

Under **chemical trauma** would be listed those disturbances of metabolism, such as acidosis, hyperglycemia, uremia, et cetera, which are usually of little significance in the normal patient, but which assume great importance in a patient who is a poor risk. The seriousness of these conditions is greatly augmented by concomitant infections or mechanical traumata.

Under **psychic trauma** would fall the mental changes which may vary from suicidal depression to acute mania. It is true that serious postoperative psychical disturbance occurs usually upon patients in whom there already has been evidence of mental perturbation. Such disturbances point to that most important axiom of medical practice —that one cannot treat the body well unless one also treats the mind. Serious mental sequelae may be obviated by a proper appreciation of the mental condition before operation and the institution of proper suggestive, environmental, and therapeutic steps.

This grouping of postoperative complications under the word trauma is a deliberate attempt to emphasize the direct causal relationship between postoperative complications and the surgical ordeal. Surgeons too often explain a postoperative complication by some extraneous influence. This attitude will not assist us in avoiding such sequelae in the future. **The surgical wound is the one thing common to every surgical procedure.** The complication did not arise until a procedure was carried forward. Obviously there is some relationship. We have but to recall a single incident to emphasize this point. The pulmonary difficulties which are so common following surgery were called ether pneumonia in the days before cocaine was utilized for infiltration anesthesia. When operations were performed under local anesthesia and exactly the same pulmonary complications arose, surgeons found great difficulty in changing their point of view, and even today some will not believe that the pulmonary disability is related to what they actually do in the wound. The surgeon comprehends with difficulty how small thrombi may give rise to minor circulatory adjustments in the lung, which may cause pulmonary pathology. Only when the surgeon recognizes that the sequelae of surgery are due to his technique at operation will he avoid these calamities. It is not my intention to describe the separate entities which occur following surgical procedures but merely to indicate that such sequelae are directly related to what the surgeon does, in order that he may be influenced to protect his patient by a constant improvement in his technical methods.

SUMMARY

Finally in order to evaluate the factors producing any special complication, the surgeon must review each step in the preoperative preparation as well as each step in the operation. Drugs may play a role, and we feel there is ample evidence to justify the suggestion that the use of morphine is often dangerous. Morphine lowers both the rate and amplitude of respiratory excursions. If it is used in large doses and frequently repeated, it may, when added to other factors, be sufficient to encourage atelectasis. I hope it will not let me appear cruel or unkind to state that a little postoperative suffering which increases the activity of the patient is far better medicine than inducing comfort through the use of powerful drugs.

I hope this discussion has introduced to you the conscientious attitude of modern medicine. Though the advent of anesthesia is only a little less than

a century away and modern asepsis scarcely 50 years behind us, we have benefited so greatly from increased knowledge in chemistry and physiology that anatomical and pathological considerations now must be judged in relation to these fundamental considerations. We appreciate the dangers of dehydration and improper food intake; we can recognize before operation and properly adjust chemical imbalances; and we have many anesthetics at our command to suit each situation.

The tendency of modern medicine to learn by our mistakes, to improve constantly the preoperative risk and to study end-results has provided our generation with a fund of knowledge that must be brought to every patient. It has its place only when blood is spouting from the wound. This is of rare occurrence in civil medicine, and hopefully our times may, though the outlook is none too propitious now, avoid experience in this on the battle-fields of Europe. Even in patients with intestinal obstruction, haste is dangerous. With modern suction apparatus the upper gut may be easily evacuated whilst the chemical imbalance is restored by proper intravenous therapy. Again in patients with peritonitis time for adequate study before the ordeal will surely lower the postoperative difficulties. In the first place an accurate diagnosis will be made. But perhaps more important to the surgeon—he will appreciate where to place his incision. Let us examine acute appendicitis with abscess formation, one of the most frequent problems presented to the surgeon. He who makes a hasty diagnosis of appendicitis and, wedded to a single incision, enters the abdomen through a rectus muscle-splitting incision will often find himself in a clean peritoneal cavity with an abscessed mass beneath the cecum and in the right lower quadrant. Under such circumstances 80 per cent of surgeons will break through into the abscess, spill bacteria into an up-to-now uninvaded peritoneal cavity and if the patient recovers after a stormy convalescence accepts the plaudits of the family for his great skill. How much better and how much more intelligent to have recognized exactly the condition by careful preoperative study and then to have made a flank incision which never would have entered the free peritoneal cavity. Thus he would have followed the pointed finger of Mother Nature who was preparing to discharge the trouble at this point and his patient would have had an uneventful convalescence.

The days of showmanship and simple manual dexterity are happily passed. I am hoping that those of you who are physicians will put your trust more and more in the surgeons of this generation who have had an adequate education in physiology and chemistry as well as anatomy and whose gentle and meticulous technique is aimed at avoiding all forms of mechanical injury.

"Liver Deaths" Following Ovariotomy

The explanation of these hepato-renal deaths, as based upon the experience of many surgeons who have studied the subject, may be summed up as follows: The patient with biliary disease, whether or not gross obstruction is present, always exhibits some degree of liver damage, which is not, however, incompatible with the stress and strain of ordinary life. But, when surgery is undertaken, even under the most favorable circumstances, other factors are introduced, including the anesthesia, the trauma of the surgical manipulation, the associated drop in intra-abdominal temperature, and changes in intrahepatic and biliary pressure; and with these new factors, the liver, already the seat of a pathological process, cannot cope. As a result, its function promptly fails, and the toxic substances which reach it in the course of normal body metabolism are thrown off undetoxified.

Then the liver cells, as they become increasingly unable to function, themselves undergo some necrotic change and themselves discharge into the circulation some additional toxic product which originates in their own degenerating cellular substance. Further: The kidney, which is, after the liver, the great detoxifying organ of the body, must take up the work of the liver, purely as a matter of physiology, when the detoxifying function of the liver fails. But, in the kidney, the margin of safety is very slight, and it is not fitted to handle even the normal products of body metabolism, let alone, in addition, the toxins liberated by the damaged liver cells. It promptly breaks down in its turn therefore, and an overwhelming and lethal toxemia is the natural consequence. The hepatic changes in these cases always precede the kidney changes. And it is our further opinion that if the patients who die promptly with hyperpyrexia and who exhibit liver degeneration at the autopsy could be kept alive long enough, they also would show precisely the same clinical and postmortem renal changes as do the patients who die later with typical symptoms of uremia. The pathological process should center in the kidney, since its convoluted tubules are the normal channels of excretion for foreign proteins, which they assume these liver toxins to be.

The conclusion, then, is obvious, viz.: Any patient with a damaged liver is a poor risk, not only for biliary surgery, but for any surgery at all.—Herbert W. Hewitt, M.D., Detroit; Jr. Mich State Med. Soc., Vol. 38, No. 10, October, 1939.

A good surgeon should have an eagle's eye, a lion's heart and a lady's hand.—Sir Philip Sidney.

Review of 141 Consecutive Cases of Massive Hemorrhage From the Upper Gastro-Intestinal Tract

E. N. COLLINS, M.D. and R. S. KNOWLTON, M.D.

IN a series of 2620 consecutive cases of proved peptic ulcer at the Cleveland Clinic, 100 patients, or 3.8 per cent, had the complication of massive hemorrhage. During the period of time covered in this review, there were 41 additional patients who had massive hemorrhage from the gastro-intestinal tract due to causes other than peptic ulcer. Although peptic ulcer and other intrinsic diseases of the stomach and duodenum cause massive hemorrhage in most instances, this study reveals a greater proportion of cases wherein peptic ulcer was not a factor than has been found in analyses of other series.

When massive hemorrhage from the gastro-intestinal tract is encountered, there is rightfully much apprehension in the minds of both physician and layman. Death occurred in 5 per cent of our cases wherein this complication was due to the presence of peptic ulcer. Prompt and effective treatment involves a quick appraisal of all possible causes.

The present investigation, in addition to determining the causes of massive hemorrhage from the gastro-intestinal tract in 141 consecutive cases, includes an appraisal of such features as sex and age incidence, the presence or absence of symptoms prior to hemorrhage, their duration if present, complications, operative procedures, and mortality rates, particularly in the peptic ulcer group. Certain features pertaining to the nonpeptic ulcer group will also be presented.

TABLE 1

Causes of Massive Hemorrhage (141 Cases)

	Cases	Number of Hemorrhages	Per Cent	Per Cent of Total
1. Intrinsic Upper Gastro-Intestinal Lesions:				
Peptic Ulcer	2620		3.82	70.92
Mortality	5	100	5.0	
Carcinoma of Stomach	455	8	1.76	5.67
Mortality (Hospital)	3		37.5	
Peptic Ulcer of Esophagus	4	1	25.0	0.7
Mortality	0		0	
2. Extrinsic Factors				
Splenic Anemia (Banti's Type)	55	19	34.5	13.5
Mortality	0		0	
Cirrhosis of Liver (Portal)	183	13	7.1	9.2
Mortality	0		0	

By definition, only those patients who had lost large amounts of blood by mouth or rectum are cited. Although massive hemorrhage by mouth (hematemesis) occurred in 67 per cent, and by rectum (gross melena only) in 33 per cent, there were associated symptoms of severe shock in 45 per cent of the former group and 17 per cent of the latter group.

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The Authors

● Dr. Collins, Cleveland, Ohio, is a graduate of Rush Medical College of University of Chicago, 1923; fellow American College of Physicians; diplomate American Board of Internal Medicine and American Board of Radiology; head of section on gastro-intestinal diseases, Cleveland Clinic.

● Dr. Knowlton, Cleveland, Ohio, is a graduate of University of Rochester School of Medicine, Rochester, New York, 1933; formerly a fellow in medicine, Cleveland Clinic.

INTRINSIC FACTORS

The Peptic Ulcer Group

Sex Incidence: In this group there were 74 males and 26 females (approximately a 3 to 1 ratio). The location of the ulcers is shown in table 2. Duodenal ulcer with hemorrhage in the male sex had the greatest incidence. In the female sex, the relatively smaller incidence of duodenal ulcer with hemorrhage is noteworthy.

TABLE 2

Massive Hemorrhage in 100 Cases of Peptic Ulcer

74 Males	
Duodenal	69
Gastric	5
26 Females	
Duodenal	21
Gastric	5

Age Incidence: It will be noted in table 3 that most of these patients were between the ages of 25 and 55 years at the time of their first admittance.

TABLE 3

Age at Time of First Admittance

Age:	15	20	25	30	35	40	45	50	55	60	65	70
No.:	2	3	8	13	15	18	14	10	11	3	3	0

In table 4 it will be seen that the onset of

symptoms was before the age of 40 in most instances.

TABLE 4

Age of Onset of Symptoms												
Age:	15	20	25	30	35	40	45	50	55	60	65	70
No.:	8	13	12	19	14	18	8	2	2	0	1	0

The maximum number of first hemorrhages occurred between the ages of 25 and 45 (table 5).

TABLE 5

Age at First Hemorrhage												
Age:	15	20	25	30	35	40	45	50	55	60	65	70
No.:	5	8	11	19	11	18	12	4	6	1	2	0

Race: There were 99 patients belonging to the white race and one to the colored race.

Total Duration of Symptoms of Ulcer: The total duration of symptoms of ulcer before entrance to the Clinic is shown in table 6. The average duration of ulcer symptoms was 2.9 years.

TABLE 6

Total Duration of Symptoms of Ulcer												
Time:	3 mos.	6 mos.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.	9 yr.	10 yr.
No.:	4	4	4	3	6	4	12	5	3	6	2	4
Time:	11 yr.	13 yr.	14 yr.	15 yr.	16 yr.	17 yr.	20 yr.	22 yr.	30 yr.	35 yr.		
No.:	2	3	4	4	4	1	5	2	1	2		

Total Duration of Symptoms of Ulcer Before Initial Hemorrhage: The total duration of ulcer symptoms before the first hemorrhage is shown in table 7 (average 1.5 years).

TABLE 7

Duration of Ulcer Symptoms before Hemorrage															
Time:	0	1 wk.	2 wk.	1 mo.	2 mo.	3 mo.	6 mo.	1 yr.	2 yr.	3 yr.	4 yr.	5 yr.	6 yr.	7 yr.	8 yr.
No.:	22	2	2	3	10	8	3	5	2	1	3	5	3	2	2
Time:	9 yr.	10 yr.	12 yr.	13 yr.	14 yr.	15 yr.	16 yr.	21 yr.	31 yr.	Unknown					
No.:	2	2	1	2	2	1	1	1	1	14					

Number of Hemorrhages: The number of hemorrhages per patient before entering the Clinic were as follows: 70 with one hemorrhage, 16 with two hemorrhages, 8 with three hemorrhages, 4 with four hemorrhages, and 2 with five hemorrhages.

Asymptomatic Hemorrhage: Spontaneous asymptomatic hemorrhage occurred in 22 per cent. These patients had no abdominal symptoms immediately prior to the massive hemorrhage. The records were not complete relative to the presence or absence of ulcer symptoms in previous years in some of these cases. In 50 per cent of these 100 cases either there were no symptoms or, if present, their duration did not exceed six months.

Possible Precipitating Factors: Because the initial hemorrhage occurred within three days following roentgen examination in two of these cases, we feel this procedure may have been a precipitating cause although no definite statement can be made. Hemorrhage was immediately preceded by influenza in five patients, by an anxiety state in two patients, by an automobile accident in one, by an operation in one, and by an emotional shock in one patient. Otherwise no probable precipitating causes were noted.

Complications: Complications of peptic ulcer other than massive hemorrhage and shock occurred in 14 per cent of these patients. Seven had pyloric obstruction, five had subacute perforation, and two had acute perforation.

OPERATIVE PROCEDURES

Only one of the 100 patients in this group had an operation at the time of the acute hemorrhage, a remarkably low incidence of operative procedures in this condition. However, this is in accordance with the belief that massive hemorrhage from the gastro-intestinal tract is primarily a medical problem, at least at the beginning of treatment.

Immediate and continuous availability of donors for blood transfusions is imperative. Surgical consultation at the start of management is equally imperative. Emergency surgical intervention may become necessary at any time and the surgeon should have all details in mind throughout the course of treatment. This applies to patients in the older age group in particular where erosions of sclerotic vessels are more common.

Surgeons have stated that operative procedures which are performed during the course of, or soon after, acute massive hemorrhage are attended by a higher mortality than medical management. If the hemorrhage is not controlled or if it recurs before the patient has fully recovered from the initial hemorrhage, (assuming that all the known principles of medical management have been used) the indication for operation as a life saving measure is obvious. If a large amount of blood has been lost, continuous blood transfusions before and during the operation is important. It is well known that continued bleeding from a sclerotic blood vessel is most apt to occur in patients in the older age group.

When massive hemorrhage is the reason for operation, the procedures are usually carried out during the interval between hemorrhages when the patient is in the best possible condition.

Eighteen of the 100 patients in this group either had had operations before admittance to the Clinic or had them at the Clinic (Table 8). This group of cases is being investigated further, particularly in regard to follow-up studies, because of the high incidence of hemorrhage subsequent to operation. However, the results obtained in these cases, together with those in a larger group of similar cases, have led to the conclusion that, in the absence of obstruction due to cicatricial stenosis, gastro-enterostomy alone does not prevent future hemorrhages in most instances. Due to the fact that patients who have had massive hemorrhage complicating peptic ulcer seem to have a special predisposition to recurrent hemorrhages, if operation is done we believe at least excision of the ulcer and preferably resection of the ulcer bearing area is advisable if it can be done with safety to the patient.

MORTALITY

The mortality rate in the 100 cases was 5 per cent. In two patients the initial massive hemorrhage occurred within three days following the roentgen examination. It is impossible to state whether or not the roentgen examination was the precipitating factor. At any rate, because of this experience, we have learned to use caution in palpatory manipulation during fluoroscopic examinations of patients having unusually severe symptoms, particularly in patients in the older age group.

Death occurred in a man 40 years of age, the youngest of these patients, who had had for two years recurrent symptoms due to duodenal ulcer. The initial hemorrhage started 24 hours after roentgen examination of the stomach and duodenum. He was admitted directly to the hospital and died in 74 hours. On the second day he got out of bed and drank a full pitcher of water. He had two transfusions by the direct method, using the Vincent tube technic.

A man 55 years of age, had had recurrent symptoms due to a duodenal ulcer for six years. He died within a few hours three days after a roentgen examination was completed.

Death occurred in a man 57 years of age who had had recurrent symptoms due to duodenal ulcer for 13 years. He died in the hospital three days after the onset of the hemorrhage. He had had a massive hemorrhage five months previously.

Another man, aged 66, was admitted to the hospital with recurrent jaundice and pain in the right upper quadrant of the abdomen. Exploration was done for stone in the common duct. There was no previous history suggestive of peptic ulcer. The surgeon found the stomach and duodenum to be normal (by inspection and palpation), the gallbladder was atrophic without stones, and inflammatory cirrhosis of the liver was present. On the sixteenth postoperative day the patient suddenly vomited a large amount of blood and died in a few hours. Postmortem examination revealed the stomach to be filled with 1000 cc. of blood. At a point 8 cm. proximal to the pyloric ring on the lesser curvature of the stomach, there was a round, punched-out ulcer measuring 1.5 cm. in diameter. Examination of the margin of this ulcer revealed unusual induration and the base of the ulcer was covered by a greenish brown slough, several open blood vessels could be seen, and the ulcer had eroded completely through the stomach wall and was approximately 0.8 cm. in depth. Microscopic examination revealed a benign gastric ulcer.

Death occurred in a 67-year-old man who had had recurrent symptoms due to gastric ulcer off and on for 15 years. He was admitted to the hospital for medical management which included milk and cream every hour and the use of alkalies every hour on the half hour. On the tenth hospital day, he suddenly collapsed from a massive hemorrhage. After two days of continuous bleeding and two blood transfusions a gastric resection was performed. He died in coma the next day. The level of the blood urea was 150 mg. per 100 cc. and the pathological examination of the resected specimen revealed a benign ulcer.

COMMENT

After a careful perusal of the records of these five patients, as well as those of the other 95 patients, the authors believe that two therapeutic procedures need emphasis, viz., the use of blood transfusions given by the drip method or at least given slowly in order to avoid undesirable increases in blood pressure and, second, exploration if the use of all proved principles of medical management do not control the hemorrhage, regardless of the age of the patient. Equal emphasis should be placed on the use of conservative methods at the start of management, such as rest in bed, the rectal or parenteral use of barbiturates, supplemented with opiates if needed for complete rest, and starvation during the first 36 to 48 hours. It is well known that in many instances the acute hemorrhage has been arrested by the time the patient reaches the hospital.

We agree with Rivers[1] who states: "The precipitous institution of radical therapeutic measures without calm, deliberate diagnosis may put in jeopardy, rather than save the life of the patient. Nor is a careless or procrastinating attitude toward the symptom of even minute gastric bleeding ever justifiable. Persistent or frequent massive hemorrhages occurring in rapid succession may be very serious and occasionally terminate fatally with surprising rapidity".

The publication of Crohn and Lerner[2] is particularly noteworthy at this time. Their analysis shows that at the Mt. Sinai Hospital in New York City the fatality for patients admitted between 1915 and 1925 was 4.2 per cent when conservative methods of medical treatment were used, and that it was increased to 6.5 per cent during the years 1927 and 1937 when more radical procedures were employed. Many authors report an increasing mortality from massive hemorrhage due to peptic ulcer, which they view with alarm.

Hurst[3] who reports a low mortality rate uses

transfusions only as an emergency measure. We believe that as soon as the patient is admitted, his blood should be typed and a suitable donor should be available at all times. We agree with Crohn and Lerner that a fluctuation in blood pressure is the best guide to the immediate therapy. If the systolic blood pressure curve is falling, particularly if it approaches 90 mm. of mercury, and if this is combined with a rise in rate and increased feebleness of the pulse as well as general uneasiness of the patient, there should be no delay in starting blood transfusion by the slow drip method. Sufficient sedation should be used to prevent undue excitement, but

fact that repeated blood counts in acute massive hemorrhage are often misleading. Due to the factor of dehydration the hemoglobin may remain elevated while active bleeding is still present and, due to the dilution of body fluids after the acute hemorrhage has stopped and the systolic blood pressure is rising, the hemoglobin level may fall.

It is now established that the benzidine test for occult blood in the stools may not become negative until 10 days after the cessation of the hemorrhage.

In recent years, repeated determinations of the blood urea have seemed significant as a guide to the course of events as well as prognosis. The

TABLE 8

Operation	Reason	Follow-Up	Ulcer
Partial duodenectomy and gastic resection; posterior Polya	Ulcer 3 yrs. Multiple massive hemorrhages	No recurrence 6 yrs.	D
Partial duodenectomy; resection of pylorus; posterior gastro-enterostomy	Ulcer 8 yrs. Hemorrhage 3 yrs. and 3 wks. before operation	Hemorrhage and jejunal ulcer 1 yr. later	D
Posterior gastro-enterostomy	Uncomplicated ulcer	Hemorrhage 8 yrs. later	D
1. Gastro-enterostomy 2. Gastro-enterostomy and exploratory laparotomy for perforation	Hemorrhage 2 wks. before asymptomatic	3 recurrences of hemorrhage and 1 perforation	D
Gastro-enterostomy	Ulcer 15 yrs. Hemorrhage before operation and obstruction	None	D
Gastric resection and posterior Polya	To rule out malignancy	None	G
Partial duodenectomy and gastric resection; posterior Polya	Ulcer 6 months. Hemorrhage 1 week before	None	D
Gastro-enterostomy	Uncomplicated ulcer	Admitted with hemorrhage 21 yrs. later	D
Resection of ulcer and pyloroplasty	Ulcer 2 yrs. Hemorrhage 2 yrs. before operation	Hemorrhage 2 yrs. later	D
Partial duedenectomy and gastric resection; posterior Polya	Ulcer 8 yrs. 2 hemorrhages and penetrating ulcer	Died postoperatively	D
Gastro-enterostomy	Ulcer 3 years	Hemorrhage 2 yrs. later	D
Gastro-enterostomy	Ulcer 3 years	Jejunal ulcer and hemorrhage 14 and 17 yrs. later	D
Partial duodenectomy and gastric resection; posterior Polya	Ulcer 14 years, 3 hemorrhages	No recurrence 16 months	D
Gastro-enterostomy (6 years later taken down)	Ulcer 1 year	5 hemorrhages in 9 yrs. after initial gastro-enterostomy	D
Partial duodenectomy and gastric resection; posterior Polya	4 hemorrhages in 3 years	None	D
Gastro-enterostomy	Ulcer 6 years	Hemorrhages 2 and 5 yrs. later	D
Gastro-enterostomy	Ulcer 14 years; obstruction	Hemorrhage 4 years later. Penetrating gastric ulcer 7 yrs. later	D

if these procedures prove tiresome, the blood transfusion should be stopped temporarily after 250 or 300 cc. have been given. An extra supply of the citrated blood may be stored in the refrigerator to be used as often as desired. In our experience, if the citrated blood is given continuously by the slow drip method night and day, the maintenance of one constant position of the extremity used may prove burdensome to the patient and may disturb the natural mechanism for the promotion of clot formation. Small transfusions, preferably given after the hemorrhage has ceased, have proved most effective.

Insufficient attention has been given to the

elevated urea levels have been attributed to the absorption of blood from the intestinal tract and to tissue destruction. But the most widely accepted belief is that the azotemia is a measure of circulatory failure or shock. Due to the diminished flow of blood through the kidneys, there is a decreased urea clearance. In the absence of circulatory collapse or shock there has been no disturbance in the blood urea levels.

We repeat that in our experience careful observation of the patient from a clinical standpoint is most important. Repeated determinations of the blood pressure, the general demeanor of the patient, close observation, and repeated

determinations of the rate and change in character of the pulse by dependable and experienced nurses as well as the physician, have been found most significant in judging the progress of the patient. Although blood counts which are made once or twice daily by the same experienced technician have given helpful data, this information has not proved as important a guide to immediate treatment during the first 24 to 48 hours following the massive hemorrhage as the clinical features mentioned.

During the period of starvation, if blood transfusion does not seem to be indicated and marked dehydration is present (usually present only if a large amount of blood has been lost), 5 or 3 per cent glucose in normal saline solution has occasionally been given by the slow intravenous drip method or subcutaneously, but these measures have generally been withheld until the clinical evidence points to cessation of the acute hemorrhage.

We have not used the Meulengracht method of administering food at the time of onset of the massive hemorrhage[4]. Apparently many of the patients reported by Meulengracht had milder degrees of hemorrhage than those under consideration. When it was our belief that the use of an intranasal tube would and did not unduly excite the patient, we have used the method described by Woldman[5] wherein a colloidal suspension of aluminum hydroxide is administered by the continuous drip method. This has been followed by successful results and we believe this method is physiologically sound. Otherwise, we have started the use of the same preparation by mouth, after the initial period of 36 or 48 hours' starvation, every two hours during the night as well as during the day. If the progress of the patient is satisfactory, two hour feedings (midway between the times the alkali is given during the day) are soon started. We have found that Roscoe R. Graham's method of giving ground red meat as soon as feedings are started is effective. In certain cases it was given before hemorrhage had ceased, with at least no deleterious result. Later, the principles of management mentioned elsewhere[6] are used.

PEPTIC ULCER OF THE ESOPHAGUS

One of four patients with ulcer of the esophagus presented massive hemorrhage by emesis. This was a man, 48 years of age, who had had typical symptoms of peptic ulcer for eight months previous to our examination and who had had three negative roentgen examinations of the stomach and duodenum elsewhere. This patient was admitted two weeks following a massive hemorrhage by emesis. Roentgen examination of the esophagus revealed a spastic area in the lower one-third of the esophagus, and an ulcer crater was visualized. The stomach and duodenum were reported to be normal. No esophagoscopic examination was made. By the process of exclusion we concluded that this patient had a massive hemorrhage from a peptic ulcer of the esophagus.

CARCINOMA OF THE STOMACH

Although hemorrhage from carcinoma of the stomach is usually of the slow, oozing type, eight of 455 cases, or 1.8 per cent, of the patients had massive hemorrhages by emesis and in three of these massive hemorrhage was the precipitating cause of death. In other words, carcinoma of the stomach is not excluded when the patient has had massive hemorrhage from the gastro-intestinal tract. Forty-eight, or 10.5 per cent, of these 455 patients presented evidence of hemorrhage as one of the chief complaints on admission.

TABLE 9

Ages in Massive Hemorrage from Carcinoma of the Stomach							
33	35	44	48	49	52	64	64

Age: The ages of the eight patients who had massive hemorrhage are shown in table 9. The average age was 46 years.

EXTRINSIC FACTORS

Splenic Anemia

In a series of 55 patients with splenic anemia (Banti's type), 34.5 per cent, or 19 patients, had massive hemorrhage, 18 of them by emesis and one as evidenced by examinations of the stools. So far as the total group of 141 consecutive cases in this series is concerned, the incidence of hemorrhage was 13.5 per cent. Nine were males and 10 were females. The ages varied from 5 to 75 years and were quite evenly distributed throughout these years as shown in table 10. Although this disease is most commonly observed in older children or young adults, it will be noted that massive hemorrhage occurred in the older individuals, as well as in the younger patients in this series.

TABLE 10

Splenic Anemia																
Age:	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
No.:	2	0	2	2	1	2	2	1	2	2	0	1	1	0	1	0

Portal Cirrhosis of the Liver

In this group, 7.1 per cent, or 13 of the 183 patients with portal cirrhosis of the liver, presented massive hemorrhage by emesis. This was the cause of massive hemorrhage in approximately 9 per cent of the total series of 141 consecutive cases.

The ages varied from 20 to 70 years and the

maximum numbers were between 55 and 70 years of age, as shown in table 11. The similarity, as far as age is concerned, to that of carcinoma of the stomach is significant.

TABLE 11

Portal Cirrhosis of Liver											
Age:	20	25	30	35	40	45	50	55	60	65	70
No.:	1	1	0	0	0	1	1	2	3	4	0

CONCLUSIONS

1. In a series of 141 consecutive cases of massive hemorrhage from the upper gastrointestinal tract there was an incidence of intrinsic disease of the stomach or duodenum in 78 per cent of cases. Seventy-one per cent were due to peptic ulcer while approximately 7 per cent were due to carcinoma of the stomach.

2. Extrinsic factors were the cause of the hemorrhage in 22 per cent of the cases, a higher incidence than heretofore realized. The incidence of splenic anemia (Banti's type) was 13 per cent, slightly higher than that of the cirrhosis (9 per cent).

3. In patients having massive hemorrhage complicating peptic ulcer:

a. There were no abdominal symptoms immediately prior to the hemorrhage in 22 per cent of the cases.

b. The mortality rate was 5 per cent. No death occurred below the age of 40, and all deaths occurred in men. The initial hemorrhage occurred within three days following the roentgen examination in two of the five cases. Although this examination may not have been the precipitating factor, we believe care in palpatory manipulation should be used during fluoroscopic examinations of patients having unusually severe symptoms. The danger of palpatory manipulation in patients who have had a recent massive hemorrhage is obvious.

c. Gastro-enterostomy alone does not prevent future hemorrhages in patients who have had massive hemorrhage. If hemorrhage is the indication for operation, excision of the ulcer and preferably resection of the ulcer bearing area should be done if compatible with the patient's safety.

d. Although the treatment is an individual problem in each case, conservative medical management at the start of the treatment is favored. We agree with Crohn and Lerner that the best single guide to the immediate therapy is the fluctuation in blood pressure. The indications for and the value of the slow drip method of using citrate blood transfusions have been emphasized. Emergency surgical intervention may become necessary at any time, particularly in the older age groups. In our experience, although a surgeon is in constant attendance with the internist, an emergency operation at the time of the massive hemorrhage was performed in only one of the 100 cases cited.

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Dermatitis Herpetiformis

The possibility of an allergic mechanism in dermatitis herpetiformis seems at the present time rather more plausible. It is an old observation that this condition is made worse by the ingestion of bromide or iodide. There are several instances on record where the administration of potassium iodide by mouth or subcutaneously actually seemed to have originated the disease. Likewise the external application of potassium iodide ointment will produce local reactions in a large percentage of patients suffering with dermatitis herpetiformis. Recent work of a number of investigators tends to confirm these observations. Recently, Merfert (quoted by Sulzberger) studied 132 cases of typical dermatitis herpetiformis in which positive reactions to the external application of potassium bromide or potassium iodide were achieved in 86 per cent, while 27 cases of pemphigus were practically negative to the same tests. This demonstration of skin hypersensitiveness to bromine and iodine together with the high eosinophilia often associated, does favor the basic allergic nature of dermatitis herpetiformis.

Also food sensitivity in dermatitis herpetiformis has recently been reported by Sammis, wherein she referred to several other cases presumably on an allergic basis. Her patient, a woman, aged 33, with a strongly positive family history of allergy, developed a grouped multiforme, eruption 36 hours after ingesting eggs, beef, cheese or fish. She was also sensitive to milk, strawberries, corn, alligator pear and gin. Allergic avoidance kept her free of lesions. Sulzberger refers to a severe case of dermatitis herpetiformis in a nonatopic individual. In this case, also, skin tests with common allergens, including foods, elicited numerous definite reactions of the urticarial type.—Harther L. Keim, M.D., Detroit; Jr. Mich State Med. Soc., Vol. 38, No. 10, October, 1939.

Congenital Heart Disease

FRANK C. CLIFFORD, M.D.

CONGENITAL heart disease is primarily a pediatric problem. Many of the malformations are so abnormal that only a few days or months of life are possible. Moreover, the errors in development that cause symptoms or signs do so in infancy or early childhood. It is the pediatrician who is called upon to diagnose and evaluate these lesions. He must determine the school routine and outline the activity of the gymnasium and play-ground.

The parents are always anxious to know the immediate prognosis and the future effect of the malformation upon an active adult career. Diagnosis and prognosis demand a useful clinical classification and knowledge of the embryological growth process. Professor Maude Abbott has given the profession a classification, that not only aids in the recognition of the defects, but also facilitates the evaluation of their prognosis. She bases her classification on cyanosis. Cyanosis is visible evidence of reduced hemoglobin and in congenital heart disease is proof of an abnormal shunting of venous blood to the systemic circulation. Cyanosis with its de-oxygenated hemoglobin stimulates the bone marrow to produce more and larger red blood cells. This polycythemia, however, only serves to increase the amount of reduced hemoglobin and the degree of cyanosis.

In polycythemia the viscosity of the blood is increased. This slows the circulation through the capillaries. Retardation of capillary flow permits the tissues to absorb greater quantities of oxygen and returns the blood to the right heart with an increased amount of reduced hemoglobin. Because of capillary stasis and decreased oxygen supply the tissues suffer from a nutritional disturbance. Clubbing of the fingers and slowing of growth frequently occur. Dyspnea, cough and easily induced exhaustion are not uncommon. Fainting, convulsions and even sudden death have frequently been reported. Paul White teaches that persistent cyanosis and marked polycythemia associated with an enlarged heart are sufficient evidence of a grave disturbance of the circulation that is leading rapidly to a fatal issue.

In the normal heart the septa and valves are so arranged that the intermingling of venous and arterial blood is impossible. This orderly arrangement is completed by the eighth week of pregnancy. The formation of the four chambered heart from a single elongated tube, the primitive heart, is a complicated process in embryological growth. It is not surprising that defects occur but it is astonishing that there are so few failures. Incomplete embryological development of the heart can give rise to many different and bizarre formations. The type of deformity will depend upon the age of the embryo. The earlier the failure occurs the more deforming and pathological will be the result. Professor Abbott's classification separates congenital heart disease into three subdivisions. In the first are placed those in which cyanosis is constant and persistent; e.g. the complete absence of the intraventricular septum or a very large septal defect. In the second group are included those malformations in which cyanosis occurs only in transient and paroxysmal attacks. The pressure within the left ventricle is normally higher than in the right. Consequently in small septal defects or in patent ductus arteriosus the shunted blood flow will be arterial-venous. Cyanosis can not result. However, reversal of intra-ventricular pressure will likewise reverse the direction of the shunted blood. Cyanosis will occur if sufficient venous blood enters the systemic circulation. Such transient and paroxysmal attacks are most commonly associated with crying, with the spasmodic coughing of pertussis or with any other condition that increases the pressure within the pulmonary artery.

THE ACYANOTIC GROUP

The acyanotic or third group is characterized by the complete absence of cyanosis. In these developmental errors no abnormal communications between right and left cavities exist.

Congenital heart disease is most frequently discovered in infancy or early childhood. It is usually associated with loud harsh blowing murmurs and thrills. However, we must recall the oft repeated warning that the intensity of a murmur is not always in direct proportion to its

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The Author

● Dr. Clifford, Toledo, Ohio, is a graduate of St. Louis University School of Medicine, 1921; fellow American College of Physicians, member American Heart Association; cardiologist to Crippled Children's Convalescent Home; Lucas County, Mercy, Robinwood and St. Vincent's Hospitals, Toledo.

clinical importance. Small, and often clinically insignificant, defects obstruct the flow of shunted blood. This creates a noisy disturbance and loud, harsh murmurs are produced. Contrast this with the important large septal defects or the complete absence of the septum. These lesions offer little or no obstruction to the shunted blood and consequently are relatively or actually silent. So much so that their presence is unsuspected or undiscovered after careful auscultation of the chest. It is somewhat comparable to steam flowing through a pipe, the end of which is open. The steam escapes relatively noiselessly but the head of pressure is completely lost. Contrast this with a pipe in which a small and insignificant leak exists. The pressure is affected little, if at all, by the small amount of steam lost. However, the noise may be tremendous and may acquire the characteristics of a steam whistle. The clinical significance of congenital heart lesions depends upon their effect on the circulation. Some are so benign and symptomless that their presence is only discovered as a silent anatomical finding in a routine necropsy on a senile individual. Others produce such malignant physiological changes that only a few hours, days, or months of life are possible. Between these two extremes there are malformations that shorten the normal expectancy to childhood or early adult life.

Prognosis is intimately associated with cyanosis. Therefore, in the diagnosis of congenital cardiac malformations it is most important to recognize these lesions which permit venous blood to become mixed with the arterial supply. In the acyanotic group the prognosis depends upon the circulatory embarrassment they induce.

In the prognosis of congenital heart lesions it is most important to remember that each and every defect, however small or large, important or unimportant, is a potential site for the implantation and growth of the streptococcus viridans. Subacute bacterial endocarditis and certain death at the present time are practically synonymous.

In the evaluation of the prognosis of congenital heart disease symptoms and signs of circulatory insufficiency are of greater importance than the location and intensity of murmurs.

316 Michigan St.

Trends in Mortality

A study of the trends in the mortality from tuberculosis for the last 60 years fails to show any reason for the fact that the rate for women over 30 has declined more rapidly than for men in the same age group. The explanation may be that the home furnishes a more favorable environment than industry or business, or could it be that women have adapted more readily to civilization, with respect to tuberculosis?—C. C. Dauer, M.D., Amer. Jr. Hygiene, May, 1938.

Growth in Diabetic Children

This brings us to the part played by endocrines in diabetes, and in this disease involvement of the endocrines is not to be considered as an isolated complication. The pituitary gland (the master gland of the body) influences carbohydrate, protein, and fat metabolism; the thyroid gland influences protein metabolism; the parathyroids control the calcium-phosphorus metabolism; the pancreas controls the insulin mechanism; and the adrenals drive the glucose metabolism.

A number of important questions arise in the consideration of this problem. First, does the diabetes of itself retard growth? Our experience in these 75 cases indicates, first of all, that half of our diabetic children are of full normal stature. A further analysis of these cases shows that just as many of the poorly controlled cases as the best controlled ones grew normally and well. It is quite evident in our group that hyperglycemia and glycosuria, of themselves, were not the cause of asymmetrical or subnormal growth.

It would be highly desirable to differentiate the predominantly thyroid type from the pituitary type of growth disturbance. The thyroid or cretin type has a low basal metabolism, mental retardation, delayed closure of the epiphyses, delayed development of sex characters, and dwarfism. The thyroid type will have shorter legs and arms, while the pituitary type has longer legs and arms. Some of these cases also will present a generalized obesity.

The pituitary deficiency types will manifest their lack of growth hormone in the female by delayed appearance of sex characteristics, such as absence of hirsutes, underdeveloped breasts, infantile uterus, amenorrhea, and general dwarfism. Some have obesity of the mid-third of the body and others remain slender. A striking clinical finding in the younger children is a persistence of lanugo. With all of these findings, there is a marked delay in epiphyseal development. Roentgen ray reveals fraying, transparency, open epiphyses, and bone margins which are distinctly abnormal.

A similar condition is found in the separation of the epiphyses at the hip joint, particularly in boys at the pubescent period. Such cases as I have seen were in nondiabetic children and only too frequently these cases are diagnosed as being of traumatic origin, the importance of the endocrine factor not being recognized. Experience has shown that the history of trauma in these cases is incidental, the real cause of this disease being the open epiphyses of endocrine origin. Such patients will not infrequently give a history of thyroid disease in the mother.—Joseph H. Barach, M.D., Pittsburgh, Pa.; Pa. Med. Jr., Vol. 42, No. 12, Sept., 1939.

Differential Diagnosis of Cough

GEORGE L. KING, M.D.

THE advent of specialization in medicine has been a great boon to the patient and to the physician; yet, it also has its dangers. The specialist tends to think too much of his own sphere and too little of those parts of the body continuous with or contiguous to his special field. He tends, too, to lose sight of the signs and symptoms of general disease which he learned during his early training.

The subject I wish to discuss today has been long thought of in the realm of general medicine, but we have thought too little of it in connection with our special practice. Let us consider for a few moments the diagnosis of cough.

My attention was first called to the importance of this subject in association with my work as consultant at the Molly Stark Sanatorium for the treatment of tuberculosis. There I found presented to me for investigation, many patients suffering from coughs who were non-tuberculous; in other words, they had come to the hospital under a faulty diagnosis. In studying these cases I found otolaryngologists of excellent training and background, internists of good repute, making these errors. This work directed me to the sinuses as a cause of cough and a little study of the literature soon showed me that there was a fund of knowledge available, if we but looked for it.

From that start, I have broadened my outlook to include the most common causes of cough, and I am going to attempt to refresh your minds with a recital, with case reports, of those conditions which should enter your mind when you see a patient who coughs. I lay no claim to originality in this review, but do claim that most physicians, general or special, do not give adequate consideration to this problem.

How frequent is cough as a symptom of disease? Meakin, in his recent textbook of medicine lists the symptoms occurring in an unselected group of 1,000 patients, taken from all walks of life. Of these, 168 complained of cough as a chief complaint and this is almost 17 per cent of the total number. Observations in ear, nose and throat practice would lead me to believe that the per cent there is just as high, or somewhat higher.

Perhaps you feel that this is a field for the internist and that otolaryngologists should not go below the larynx in action or in thought. If so, permit me to quote from B. R. Shurly, in an address at the Atlantic City session of the American Medical Association:

"The examinations given by the American Board of Otolaryngology indicate that the candidates are splendidly prepared in the diagnosis and treatment of sinus disease, pathologic tonsils and adenoids, and in the problems of mastoiditits, and understand admirably the treatment of diseases of the throat and acute and chronic suppurative conditions in these localities. But the larynx, the thyroid, infections of the respiratory tract and the problems of internal medicine as related to the ear, nose and throat, are passed over with lessened interest and limited knowledge."

"Why should otolaryngology ignore the diagnostic consideration of organic heart disease, cancer, pneumonia, tuberculosis, apoplexy, diseases of early infancy, Bright's disease, diabetes and chronic diseases of the coronary arteries? All these, in the order named, are killing off the race. Cannot otolaryngology lend a helping hand in the detection of the early manifestations of these diseases?"

CLASSIFICATION

The act of coughing may be voluntary, but in the vast majority of cases is involuntary, an essentially protective mechanism which is intended to remove irritation and obstruction from the respiratory tract. This act is controlled by a special nervous center in the medulla oblongata and is most commonly stimulated by afferent nerve impulses coming via the vagus nerve. The cough center activates the respiratory center and deep inspiration occurs, which is followed by a strong expiratory effort against a closed glottis. After the pressure within the chest has been raised, the glottis suddenly opens at high speed. Since the nasopharynx is now closed off by the soft palate, any material raised is blown out into the mouth. The protective value of cough is familiar to all of us. It aids in expelling foreign bodies and mucus from the air passages and its suppression may be followed by dire conse-

The Author

● **Dr. King, Alliance, Ohio, is a graduate of the University of Pennsylvania School of Medicine, 1926; member American Academy of Ophthalmology and Otolaryngology; certified by American Board of Ophthalmology; member of staff, Alliance City Hospital and Molly Stark Sanatorium for Treatment of Tuberculosis.**

Read before the Section on Eye, Ear, Nose and Throat, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

quences, as in the aspiration pneumonias, which follow deep narcosis or drunkenness.

But cough may be attended with dangers. It puts a strain on certain parts of the pulmonary system and tends to distend them, it raises intrathoracic pressure, and favors the development of emphysema and bronchiectasis. The blood pressure is raised and cerebral and other hemorrhages may occur. When cough results from causes other than lodgment of material in the air passages, no good can result. And consider the wear and tear on the patient's mechanism, the loss of sleep which ensues, and the disturbance to family life in general.

A personal experience with cough of several month's duration, has left me a great respector of that annoyance and makes me ever watchful for some minor complaint that may be setting in motion this most annoying reflex.

The causes of cough may be roughly grouped as follows:

1. Cardiovascular
2. Mediastinal
3. Bronchi and Lungs
4. Allergic
5. Local or Reflex causes.

1. Cardiovascular

A. Early stages of congestive heart failure. This cough is productive, there is dyspnea present, and the generalized symptoms of edema, usually persistent. Cough often paroxysmal and exaggerated by effort. Case report.

Case No. 1—A woman, aged 35, was admitted to the sanatorium for diagnosis and as a tuberculosis suspect. She stated that four years ago she had a moderately severe chest cold accompanied by cough, expectoration and hoarseness which persisted for several weeks. She was seen by a nose and throat man who removed a recurrent tonsilar tag without relief. The cough and expectoration continued and a year later she began to have some shortness of breath and edema of ankles. From that time, until time of admission, she was in and out of hospitals and under the care of many doctors with gradual increase in symptoms. On admission she was found to have a greatly enlarged and decompensated heart and a left chest full of fluid, in addition to a minimal tuberculous lesion.

The standing of the nose and throat man was not enhanced by his removal of the tonsil tag without further diagnosis.

B. Small group due to mitral valve lesions with enlargement of left auricle.

C. Aneurysm of aorta. Here the cough is due to pressure on the bronchi or trachea and is of a peculiar ringing, dry character, referred to as "brassy". All of us have been familiar with this clinical description since college days. Here is a case:

Case No. 2—A patient, aged 59, was admitted to the sanitarium November 12, 1934, with a complaint of persistent cough of 10 month's duration, the onset having followed influenza. A diagnosis of tuberculosis was verified. Wasserman and Kahn were negative and he denied veneral disease. Only after repeated examinations were organisms found in the sputum. Routine X-ray revealed an aneurysm of aorta and patient died a sudden cardiac death. The presence of the aneurysm was more responsible for his disability than was his tuberculosis.

2. Mediastinal

A. Substernal Thyroid. Pressure on the larynx produces cough, hoarseness and shortness of breath. A general practitioner sent me the following case as an obstructive laryngitis:

Case No. 3—A woman, aged 50, complained of difficulty in breathing for past two or three years. This difficulty, she stated, had been slow in coming on and was gradually increasing in severity. She has had cough and hoarseness associated with the difficulty in breathing. Ear, nose and throat examination negative, except for edema of cords. There was marked transmission of breath sounds over the thyroid gland and unusual fullness in suprasternal notch. The diagnosis of substernal thyroid was verified by consultation and X-ray.

B. Tuberculous mediastinal lymphadenitis, usually in children. Physical examination is negative. Tuberculin test positive. X-ray will make diagnosis.

C. Malignant lymphoma in mediastinum—Hodgkins disease.

D. Neurofibromata of mediastinum. Not susceptible to X-ray.

These constitute a group of cases rarely seen and principally diagnosed by X-ray.

3. Lesions of the Lungs and Bronchi

A. Pulmonary Tuberculosis.

The mention of this disease seems almost foolish, so widespread is the propaganda for its early recognition and the attention given it in Medical School. Yet so protean are the manifestations of the disease, that the otolaryngologist will surely be the first medical man to see some patient with this disease at some time in his career; and on his ability to make a proper diagnosis, rests his standing as a physician. The primary symptom of this disease is the subject of our discussion—"cough", and represents the response of the bronchi to irritation by the presence of some substance which does not belong in the bronchi.

When cough is persistent, with or without sputum, tuberculosis must be considered as a possibility until the real cause is found. There is nothing definite in the character of the cough; it may be hacking, continuous or paroxysmal. The constitutional symptoms of fever especially in the evening, loss of weight, weakness or hoarseness symptoms must make us suspicious. Yet only one of the symptoms may be present.

How is the diagnosis to be made? Surely not with the stethoscope in the hands of the otolaryngologist, but by the tuberculin test and the X-ray in the hands of competent specialists in

that field. It is the duty of our group to refer these cases for proper diagnosis and treatment.

Case No. 4—A man, aged 27, came to my office in February, 1938, with a history of hoarseness and cough. He stated that four or five months ago, he had a sore throat with pain in laryngeal region on swallowing. Hoarseness had accompanied this sore throat and had persisted until the present time. Examination of larynx revealed an eroding ulcer of the epiglottis and a massive infiltration of the larynx itself. The patient was well over six foot and weighed 210 pounds, and felt himself to be in perfect health, except for his hoarseness. A diagnosis of tuberculous laryngitis was made.

He was referred to the sanatorium where a diagnosis of advanced stage No. 2 tuberculosis was made, since he had extensive cavitation in left apex.

Tuberculosis must ever be kept in mind when cough is present and especially when the larynx is abnormal.

B. Acute Bronchitis produces cough and expectoration with a raw feeling behind the sternum. In the earlier stages, the cough is painful and unproductive. As the disease proceeds râles in the chest become a prominent feature and serve to verify the diagnosis. This disease is rare as a primary infection, but is a common accompaniment of the "common cold", measles, whooping cough, etc.

Other cases are caused by irritating gases, which we may have to consider more seriously in years to come.

C. Chronic Bronchitis

The history of this disease is usually seasonal in early stages of the disease—later becoming chronic. It is doubtful whether chronic bronchitis can continue to perpetuate itself without recurring infections from other respiratory foci. A careful investigation of every case will usually reveal a chronic encysted infection in mouth, paranasal sinuses, or in the terminal bronchi. Of paramount importance are chronic infections of the maxillary and other sinuses. These lesions are frequently overlooked as they may only give symptoms of a mild degree and then intermittently. This is the type of case in which the otolaryngologist can be of most service to his patient.

This clinical condition, i.e., chronic bronchitis due to sinus infection, or broncho-sinusitis, is so well known and has been so ably presented to the profession so many times, that it seems impossible to believe that cases should still be overlooked, yet such is the case. In 1926 Mullin pointed out the pathways of infection by injecting India ink into the sinuses of animals and tracing the carbon particles through the submaxillary and internal jugular lymphodes, the lymph ducts, the right side of the heart and the lungs. The bronchial and mediastinal glands were involved.

The most common route of infection from sinuses to lungs is by way of the pharynx, larynx, trachea and bronchi.

Fenton and Larsell of Portland have done a great deal of work on this subject under American Assoiation of Ophthalmology and Otolaryngology grants in recent years. In a personal communication Doctor Fenton states:

"Dr. Larsell and I feel that his recent academy research conclusively demonstrates the strong probability that massive upper respiratory infections invade the lung by the lymphatic- hematogenous route, while mild infections are quite likely to be arrested by lymph glands behind the pharynx. The latter type, if chronic, would be most likely to act by the tracheal route. Since ciliary action and pulmonary lymphatic drainage are both "up-hill" in the lungs, his research explains a lot of things which could not be figured out on the basis of inhalation alone".

I think we might well consider the constitutional symptoms of sinus disease for a little while, as we as specialists are much too prone to limit our thoughts of the disease to the local symptoms. A recent text lists the following as the general symptoms of sinus disease:

(1) Nasal Discharge
(2) Nasal Obstruction
(3) Headache
(4) Less frequently, chills, elevation of temperature, general malaise, sneezing, mental sluggishness, dizziness, vomiting, anosmia; but no mention of cough (a little later in the text, cough is mentioned under maxillary sinusitis).

My own experience would lead me to believe that headache is a rare complaint and cough is a common one in chronic or subacute disease of the sinuses, especially the maxillary.

Dr. E. B. Pierce, superintendent of the Molly Stark Sanatorium, where the institutional part of this work was done, has stated that "The pulmonary symptoms produced by chronic bronchitis secondary to sinus involvement so resemble tuberculosis that differential diagnosis is not easy. Malaise, general chest pain, loss of weight, and slight rise in temperature are common, but when continued cough with considerable sputum, often blood streaked, are reported the diagnosis is difficult. A history of frequent colds and repeated pneumonia is present. The cough is often spasmodic and worse on reclining. The patient often, but not always, complains of post-nasal discharge".

There has been ample evidence accumulated in recent years to put us on the watchout for this condition—i.e., bronchosinusitis. Clerf, in 1927, said "In chronic laryngotracheitis thorough physical examination and roentgen-ray study of the chest fail to show any outstanding pulmonary disease. All systemic examinations are negative. Investigation of the paranasal sinuses reveals the presence of chronic infection".

E. R. DeWeese in 1931 made a classification of these cases which seems most clear and logical and I would like to summarize it for you:

(1) The Acute Exudative Type

There is usually a local pneumonia area most often in lower half of one lung. No dense consolidation and no associated fibrotic change. In this case, the nasal sinuses will show the same

type of lesion, i.e., a catarrhal sinusitis. Fibrosis and hyperplasia are absent. Under adequate treatment resorption and recovery are the rule.

(2) The Bronchiectatic Lesion

The bronchial trees to one or more lower lobes become thickened and dilated. Later sacculated pockets appear. Once seen, bronchiectasis is not forgotten.

(3) Chronic Fibrotic Type

The generalized plastic lesion. An intense generalized interstitial fibrosis. All the portions of the bronchial tree, including the more peripheral branches and sometimes the alveolar walls, show the diffuse, uniform fibrous change.

Doctor Courtney Headland of New York City, roentgenologist to the Yonkers Hospital, reports the following opinion of these cases.

"In my experience, chronic sinusitis is almost invariably accompanied by a chronic cough. The X-ray findings are usually marked thickening about the roots of both lungs and an accentuation of the peribronchial markings along the descending bronchi of both lower lobes. At times the changes are so great they simulate a bronchiectasis.

"When cases are referred to me for a chronic cough, I routinely take a film of the sinuses. In children at least 90 per cent will show infection in the antra. In adults the percentage does not seem to be nearly so high".

I have recently reviewed all the histories from the Molly Stark Sanatorium in which sinusitis was a complicating factor of importance, and selected from that group 52 histories. The following table lists 18 cases of these types, all of whom are non-tuberculous and rather typical in their histories; according to age, duration of illness and symptoms, and can be the subject of a great deal of interesting study. A few cases I will discuss in some detail.

No.	Age	Onset	Symptoms
1442	18	About 6 months	Frequent chest colds, cough and expectoration.
1469	18	One year	Tired, "no pep", recently night sweats.
1471	18½	Two years	Tiring and weakness. Sinus trouble and caught cold easily. Some cough.
1490	32	One month	Tiring and weakness. Slight cough for several years.
1510	26	Twelve years	Repeated attacks of sinusitis. Coughing more recently. Hemoptysis.
1563	17	Two months	Head cold which settled in his chest. Cough and expectoration. Loss of weight.
1804	12	Not stated	Child always had frequent colds and difficulty with ears.
1877	9	Seven years	Cough, run down; cough has been worse each winter.
1071	29	One month	Chills, fever, night sweats, productive cough. Pain in left chest.
1196	15	Two months	Pneumonia at onset of illness and has coughed ever since, usually on changing positions.
1154	16	Four weeks	Four weeks before admission sore throat, fever, cough with blood streaked sputum.
2060	10		Admitted as acute upper respiratory. No history given.
2008	9	Few months	Has had cold all summer. Cough and expectoration.
1945	13	Two months	Slight cough, night sweats for two weeks. Father has taken the cure.
392	27	Six months	Severe cough occurring three times every night.
956	12	Two years	Following T&A began to cough. Has frequent colds and has coughed almost continuously. Also has night sweats.
1025	19	Two years	Catarrhal and post nasal drainage. Cough for past three months. Loss of weight, fatigue, pain in chest.
1145	22	One month	Cough for past month following a slight coryza—persistent and paroxysmal.

In 11 cases, the onset of symptoms was less than one year, in three cases two years, in two more than two years, in three duration was not stated. A review of the symptoms brings to light the interesting fact that a feeling of fatigue or lack of energy is a prominent symptom, almost always associated with cough, especially at night. Night sweats (weren't we taught they almost always meant tuberculosis), are not uncommon, chills and fever, repeated colds or pneumonia help to complete the picture and occasionally blood streaking, or frank hemoptysis is present.

Case No. 5 (1469)—The patient, a boy of 18 years, was admitted to the sanatorium because of being run down, tired, and because he had cough and expectoration. He has not felt well for the last year, has lost 15 pounds and has had repeated periods of rest in bed. He has been treated for chronic bronchitis.

X-ray examination of chest showed heavy hila with peribronchial thickening and heavy lines running to base. Sinus plate showed opaque right antrum. This case illustrated the class three of DeWeese, the chronic fibrotic type of change. He cleared rapidly and was discharged as non-tuberculous.

Case No. 6 (1563)—Again, a young man, age 17, with a complaint of cough and expectoration. He felt well until two months ago when he developed a head cold that settled in his chest. He has lost 15 pounds and has been in bed at home. He was sent to the hospital as a possible tuberculous patient. X-ray examination showed areas of density in left base illustrative of type No. 1 of DeWeese, the acute exudative type. Sinus plates showed both antra opaque. They cleared rapidly on irrigation and patient was discharged as non-tuberculous.

Case No. 7 (1154)—A girl, age 16, had been well all winter until four weeks before examination when she developed sore throat, fever, cough with blood streaked sputum. She has lost 10 pounds, her appetite is poor and she has had a fever running as high as 105° accompanied by chill. A clinical diagnosis of miliary tuberculosis was made and she was admitted to the Molly Stark Sanatorium, where she was found to be non-tuberculous. Sinus X-rays showed complete clouding of the antra—chest negative. She completely recovered following irrigation and has since married and had two children.

Case No. 8—One more case from the Molly Stark Sanatorium will be sufficient to conclude the point—the need for more careful diagnosis of cough from standpoint of cause. A white adult female, age 26, a graduate nurse, entered the hospital with the following history: She was perfectly well until six weeks before admission when she noticed that she tired more easily than usual. She had a sore throat with enlargement of anterior cervical glands. About three weeks ago she began having pain over left antrum and was treated for acute maxillary sinusitis by the otolaryngologist for whom she worked. About a week later (after conservative sinus treatment) she began to cough and this has persisted until the present time. She does not raise any material. Her weight has gradually diminished by about 10 pounds. An internist examined her and made a diagnosis of tuberculosis. At the sanatorium, however, chest showed no evidence of tuberculosis, but did show involvment of the maxillary sinus. Improvement was rapid and complete.

But these cases may be diagnosed and treated successfully in the office as the following private cases will show:

Case No. 9—Male, age 42, executive.

Complaint: Severe cold and chronic cough all winter. Hospitalized in November because of broncho-pneumonia.

11-18-37—First office examination: pus under both middle turbinates; right antrum dark, left questionable. X-ray ordered.

11-19-37—Both antra irrigated through natural opening. Complete casts of both antra. Antra irrigated six times subsequently with continual improvement in symptoms.

1-1-38—Asked to come in for check-up. Nose normal in appearance. Sinuses clear, no cough. Tonsils still infected and should be removed.

Case No. 10—Female, age 25, nurse helper at Sanatorium.

Complaint: Has been coughing since last November.

3-16-38—Came to office with the above complaint. Broncho-pneumonia last November. She is a tuberculosis suspect. Coughs principally on arising and when going to bed. Right antrum dark on transillumination. Irrigated through natural opening. Much pus obtained.

3-19-38—Symptoms much improved.

3-22-38—Both antra irrigated. Much pus, but feeling better.

3-29-38—Antra clearing. Subsequently treated at Sanatorium with complete recovery. Entering training.

Case No. 11—Female, age 20, clerk.

Complaint: Cough and cold of four weeks duration, especially night and morning and when out in cold air. Has been somewhat hoarse.

11-18-37—Examined at office. Left antrum dark and tender. Profuse discharge from left side of nose. Tissues boggy, irrigated through inferior meatus. Much pus.

11-20-37—No cough. Antrum much clearer.

11-22-37—Entirely well. No cough. No pus in antrum.

Case No. 12—Male, age 19, student.

Complaint: Fever and cough. Had a cold for five weeks. For four weeks has had fever of varying degrees. Coughs especially in mornings.

4-21-38—Examination showed pus in left middle meatus. Irrigated through natural opening. Much pus present.

4-25-38—Temperature has ranged from 99 to 100 degrees since last treatment. Still some cough. Less pus.

5-2-38—Antrum and cough better, but fever still persists. Put to bed for a few weeks rest.

6-1-38—Antrum clear. No cough or fever.

This review should show the importance of the sinuses as a cause of cough. But let us go on and mention a few other causes of cough.

D. Bronchiectasis

Bronchiectasis has been mentioned in passing. This is a disease of such savage and incurable mien that an attempt to check it early is worth any man's time. What are the facts about causation? The causative factors may be said to be the same as for bronchitis, but the predisposing factors are much more important.

1. **Congenital factors**—These do not directly interest us as they are unpreventable.

2. **Inflammatory**—Usually bilateral and in lower lobes and prone to follow anything which may cause acute bronchiolitis, broncho-pneumonia, or peribronchitis.

3. **Obstructive**—Due to foreign bodies and tumors.

Bronchiectasis is said to be due to (1) softening of bronchial wall, (2) increased intra-bronchial pressure, (3) external traction on the wall. One or more of these factors are always present and certainly cough, as in chronic bronchitis, tends to produce increased pressure. Ample statistics are available to show that the overwhelming majority of cases have extensive sinus infection, either primary or secondary. I personally believe that the sinus is primary in many cases, and I have seen young children with chronic bronchitis which I feel sure would have become bronchiectasis if untreated. In many cases, no doubt, the sinuses may be secondarily

infected. Prevention of the disease is a better solution than attempted cure.

TREATMENT

1. Removal of all infection from respiratory tract including mouth and paranasal sinuses.
2. Detection and removal of any obstruction.
3. General hygenic care.
4. Drainage. Postural or by bronchoscope.
5. Lobectomy must now also be considered.

Our experience with this disease has been that we never cure it, but that proper attention to the sinuses together with general treatment as outlined will greatly improve the patient's condition. Furthermore, we cannot help but believe that we are preventing many cases by the early recognition of sinuses in cough.

This represents DeWees, Type No. 2.

E. Lung Abscess

Lung abscess is a cause of cough almost too well known and too much feared by otolaryngologists to need much mention. I have never yet had one of the celebrated cases following tonsillectomy to my knowledge, but every time a child develops a cough a week or so following tonsillectomy, as they occasionally do, I become apprehensive. In the average cases the symptoms appear seven to ten days following operation, although they have been noted as early as the fourth day and as late as the fourth week. Cough, chills, fever, rapidity of pulse and respiration, leukocytosis, expectoration, foul breath, and a bad taste may be present and when they are lung embolism or lung abscess should be suspected. Too often is a diagnosis of tuberculosis made when abscess is present. Lung abscess may occur without operative procedure of course.

Case No. 12—A man, aged 32, was admitted to the Sanatorium with the history that four weeks ago he became acutely ill with a severe cold followed by chills. He complained of some pain in region of xiphoid. He has not coughed but perspires profusely. Temperature was 102° on admission and he appeared acutely ill. Diagnosis of lung abscess was made by X-ray. About 10 days after admission, abscess ruptured and this was followed by excessive cough and raising. Patient made an eventful recovery.

F. Tumors of the lungs may be classified roughly as benign and malignant. The former act by obstruction only and so may give symptoms similar to those in foreign body of lungs. The malignant tumors are sarcoma and carcinoma, of the latter both primary and secondary types are seen. The sarcoma occur principally in young individuals; carcinoma in the sixth decade and in men.

Cough may be the only early symptom, due to either direct action on the bronchus or to pressure. In the first instance it is paroxysmal, in the other short and irritating. Dyspnoea and pain also are important symptoms. Carcinoma of the lung is on the increase. Before 1910, 2 per cent of post-mortems showed this condition, now 15 to 20 per cent show it.

G. Lesions of the Pleura

Pleural effusion, empyema, adhesions, metastatic lesions, Ewing's tumor of ribs, subphrenic abscess, calcifications may be mentioned in passing as worthy of thought.

4. Allergic causes of Cough

Cooke has described a peculiar cough which he frequently found associated with allergic coryza. The cough is violent and paroxysmal in nature and is frequently accompanied by vomiting. He believes it is caused by hypersensitiveness and discusses the difficulty of differentiating this cough from pertussis. Duke has also called attention to the occurrence of allergic bronchitis and states that it is often incorrectly diagnosed as tuberculosis, chronic bronchitis or bronchiectasis.

A. Brown asserts that a spasmodic bronchitis sometimes inaugurates an attack of asthma in children. He believes that in children this type of bronchitis occurs more frequently than true bronchial asthma. Rowe, Colmes, Colmes and Rackemann and Kahn state that a dry irritating cough is a symptom of sensitization of the trachea and the bronchi and point out the importance of recognizing these as typical cases of asthma. The examination of the nose in these cases may show the picture of allergy or infection. Attacks of asthma may follow immediately an attack of allergic bronchitis or asthma. Walzer states that when infection precipitates attacks they usually occur several days after the onset of the infection, while in cases of pure allergy, the attacks usually are produced immediately. The presence of upper respiratory infections, therefore, such as the common cold, paranasal sinusitis and tonsillitis, is often responsible for the precipitation of an allergic bronchitis or asthma.

5. Local or Reflex causes of Cough

Whatever general causes of cough we call to mind, let us not forget the reflex coughs which appear in our own sphere of action. A few of these should be mentioned and have been referred to by others as the "trigger" areas which set off the cough.

Elongated uvula or infected tonsils may either of them set this reflex in motion.

A woman, aged 32, had an intractable cough of three month's duration. She was carefully checked from every standpoint but got immediate improvement when her infected tonsils were removed.

Nasal polypi are a common cause of cough, usually because of the associated sinus disease. Not long ago, however, a man was seen whose

sinuses were negative but who had a polypoid degeneration of the posterior tip of the middle turbinate. He had an intractable cough which was cured immediately by removal of the polyp.

There are irritative areas on the tubercules of the septum, the anterior and posterior tips of the turbinates and at the base of the tongue which will often set in motion the cough reflex. Most any condition of the nose under proper conditions may give rise to cough and we should not forget to look at the larynx for evidence of pathology, nor should we forget that chemicals such as alcohol, tobacco, silica and various gases by their local and general actions will produce cough.

The aural cough arises most frequently during the course of our ear examination and may be most severe. It is obvious then that impacted cerumen may be a cause of chronic cough—so never fail to look in the ear, if the patient is coughing.

In conclusion it may be said that cough is one of the most common of symptoms, but may be due to any one of a number of unrelated conditions, the only requisite being that irritation of some portion of the upper respiratory tract set in motion the cough reflex.

The otolaryngologist must be so well grounded in general medicine that he will not miss the forest because of the trees. He must be able to see beyond his own narrow field and encompass at least the principles of general disease.

A review of the causes of cough has led the author to believe that chronic sinusitis is the most common single cause of cough, not excepting heart disease and tuberculosis, and a plea is made for more attention to this clinical entity.

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Sinusitis Diagnosis

When the nasal mucosa presents a pale, water-logged appearance with obstruction and mucoid secretion, we place considerable reliance upon the cell count. Eosinophilia usually means nasal allergy and calls for careful testing. Absence of eosinophiles, with a preponderance of lymphocytes, although not excluding allergy, calls for investigation of the endocrine function. In small children a blood cholesterol above 180, in adults a lowered basal metabolism and high blood cholesterol, accounts for the nasal changes.

Harry L. Huber of Chicago claims that 20 per cent of the rhino-sinusitis cases of the acute or subacute variety can be classified as non-allergic, non-infectious vasomotor rhinitis. The symptoms are sneezing, rhinorrhea, and nasal occlusion appearing upon arising, and lasting until 10 to 10:30 A.M.

The features which identify it are:

1. Occurs in females, chiefly during menstrual life and generally accompanied by sterility, in 85 per cent of the cases.
2. The blood pressure is low (about 100/69).
3. The basal metabolism is low (about minus 15).
4. The pulse is moderately slow (about 66).
5. Nasal smears show eosinophiles in 95 per cent of the cases.
6. There is no family history of allergy.
7. Skin tests for allergens are negative.

In these cases Antuitrin-S, in small doses, and thyroid gland are often helpful.—W. F. Gessler, M.D., Fort Wayne, Ind.; The Jr. Ind. State Med. Assn., Vol. 32, No. 9, Sept. 1939.

A gauze sponge, overlooked during a salpingectomy, sloughed into the bowel and thence into the bladder. It was removed cystoscopically, and catheter drainage was employed for two weeks, with a cure. At first, fecal matter passed through the catheter.—C. H. deT. Shivers, Atlantic City.

Advising the Public

CARL A. WILZBACH, M.D.

THE relationship of official health departments to the private practitioner has been much clarified within recent months. There is less antagonism and more willingness on the part of the private physician to cooperate in public health services than was formerly the case. This is due, in my judgment, to the current propaganda and the interest in socialized medicine. The physician in private practice to arrive at his conclusions has been forced to study the whole problem of medical services to the public and to take into account the political implications as well as the temper of the people.

No one can predict what the future practice of medicine will be like, but most thoughtful physicians believe that there will be increased emphasis and an expansion of public health services. If there is to be a National Health Program with Federal appropriations for state and for local communities, it would seem wise to have this program carried on by the existing official public health departments and not have another separate public health unit set up.

The doctor in private practice knows how the present Federal, State and local departments of health operate and in most communities the physicians have confidence that patients who can pay for medical service will not be treated at public expense. Should any new scheme be set up for medical care he is not so certain that this will be the case. We as health commissioners should be anxious to continue and to improve the cordial relationship that now exists in many places between the doctor in private practice and the official public health workers.

If any one doubts that there has been a change in the attitude of the private physician to public health services I would refer him to the recent action of the House of Delegates of the American Medical Association. At their meeting held on September 16 and 17, 1938, in Chicago, they went on record as follows:

"Briefly, the House of Delegates recommended expansion of public health services as related to the control of certain infectious diseases, maternal and infant welfare and similar projects, with the definite understanding that the need be established and that they be efficiently handled and economically controlled. They also recognized the need for complete medical services to the indigent; at the same time emphasizing the desirability of local control. The House recognized that the necessity for state aid might arise in poorer communities and that the federal government might need to provide funds when the state is unable to meet these emergencies.

"The needs of the medically indigent were considered, and a definition of medical indigence was supplied. Here the House felt that the determination must be made locally as to the groups covered by this term, that control of the service should be with local administration and that available facilities should be utilized before new facilities were provided. Thus, the House of Delegates felt that there was but little need for the building of new hospitals or the establishment of new diagnostic centers, provided better utilization of hospitals and laboratories already functioning can be devised".

If I understand this action the medical profession is now on record as favoring the expansion of public health services if needed, and of favoring complete medical service to the indigent, and the only stipulation is that these services be controlled locally.

I wonder if you appreciate this tremendous step forward on the part of the profession and of the obligation that is placed upon the official health offices to cooperate fully in preventing the abuse of these public health services.

In my judgment this action of the House of Delegates of the A.M.A. is the greatest deterrent to Government controlled medicine that has been presented to date.

In what ways then can we as health officers carry on our programs effectively and at the same time assist the doctor in private practice in caring for the health of our people?

The one way of which I want to speak is concerned with the newer emphasis on Health Education. Most official Health Departments carry on some kind of health education, but I do not think that we have worked very hard at the task or that we have fully estimated its value. The right kind of public information through health education can be strikingly effective at times

The Author

● Dr. Wilzbach, Cincinnati, Ohio, is a graduate of the University of Cincinnati College of Medicine, 1922; fellow and secretary of health education section, American Public Health Association; member American Neisserian Medical Society; health commissioner, City of Cincinnati; consultant for U.S.P.H.S.; member of staff, Catherine Booth Hospital.

Read before the Section on Public Health and Preventive Medicine, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

and a great aid to the health officers as well as to the private physicians.

Specialization and caring for great numbers of people in our urban centers has tended to weaken the position of the doctor as an advisor and counselor to the people; neither is he as effective in the prevention of disease and the maintenance of good health among them. Therefore, I think the health commissioner has the unique opportunity of interpreting the doctor to the public and of giving specific advice and information on health matters which the doctor in private practice seems at present not to be doing as well as he might.

I base much of what I say on personal experience in this field, although similar results have been obtained in other communities.

THE INDIVIDUAL

About 1900, after advances had been made in the control of water and milk supplies, and other sanitary improvements completed, the health officer began to center his attention upon the individual. It was felt that if further reductions in sickness and death rates were to be brought about the individual must assist in the process. This led to increased emphasis on personal hygiene and the education of the individual concerning those preventative measures which were available to him through his doctor and the public health services.

In 1905 the National Tuberculosis Association was organized, the first of the national voluntary health organizations to carry on an intensive program of education on tuberculosis. Speaking at this first meeting, Dr. Edward L. Trudeau said:

"The first and greatest need in the prevention of tuberculosis is education of the people. If every man and woman in the United States were familiar with the main facts relating to the manner in which tuberculosis is communicated and the simple measures necessary for their protection we might easily expect as a direct result of this knowledge a great diminution in the death rate of this disease".

How true this statement was we know now, 35 years after it was uttered. For, as you well know, through education, through improved medical, surgical and sanatorium care the death rate has been reduced more than two-thirds. Those of you who are acquainted with the health education, the publicity materials and the program of the National Tuberculosis Association know how the public has been influenced by them. There isn't any doubt but that because of this propaganda people with the early symptoms of tuberculosis are coming to their doctors sooner and consequently the disease is better controlled.

Through public diagnostic clinics large numbers of patients with tuberculosis are being discovered and treatments begun earlier because of this case finding procedure.

From 1929 to 1931 a study of appendicitis deaths was made in Cincinnati. It was observed that the death rate was higher in Cincinnati than in 13 other cities of comparable size.

Through the cooperation of the Academy of Medicine, the Board of Health and the Public Health Federation, a campaign of education was started in which we told the public facts concerning this disease. We stressed the fact that in early uncomplicated appendicitis 99 out of every 100 persons operated upon got well, whereas in those who waited several days and complications developed only about 75 recovered. Then we said "If you have a pain in the abdomen that lasts four to six hours do not take a laxative, but call your doctor at once. If you don't have money to pay your doctor go to him anyhow, he may send you to a free clinic". This advice was given in a series of special articles in the newspapers, in radio broadcasts, in lectures, on car and bus cards, on factory bulletins, and on leaflets, that were widely distributed.

Doctors in private practice and surgeons reported an immediate increase of patients coming to them with abdominal symptoms. They came because of this educational effort. Hospital records showed more patients coming for operation within 24 to 36 hours and fewer with complications.

From 1933 to 1937 there was an average of 50 fewer deaths for each of these years over the 1929 to 1931 rate. There may have been other factors which affected this reduction of deaths but we have been unable to detect them. We are inclined to attribute the results to our educational program.

CANCER PROBLEM

In 1930 a Tumor Clinic was started at the Cincinnati General Hospital. An educational campaign similar to the one for appendicitis was started. In this particular case it was carried on the year around. Here again physicians and surgeons reported that people were coming to them earlier with the symptoms of cancer. Many did not have cancer, but others did and treatments were started earlier for those who needed it.

Patients who came to the Tumor Clinic when it first started had waited on an average of two years after the onset of the symptoms before going to the doctor or clinic. For the past several years the waiting period between the onset of the symptoms and the time of the first visit to the doctor has been less than six months. The clinic now has a small number of seven year cures, more of six, five, and four year cures. We have no way of knowing the experience of the physicians in private practice. There has not been a sharp decline in deaths from caner, but we think that we are finding cases that other-

wise would not have been found were it not for this cancer education program.

Through public education and through inoculation, several large communities report no deaths from diphtheria for the past several years. We have found that a small leaflet delivered to the home by the public health nurse along with the birth certificate and the recommendation that the child be taken to the doctor for inoculation against diphtheria have been helpful. When the child is nine months old a second leaflet of different color is taken to the home. Last year in the summer round-up of preschool children, 80 per cent of the 3,500 children examined had been inoculated against diphtheria. Most of these inoculations were given by physicians in private practice. Local pediatricians report that parents now come to them saying they have seen one of our newspaper articles, or have read a pamphlet suggesting that they have their child immunized against diphtheria. Needless to say this cooperation has made for a more friendly feeling between the physician and the health department. The Health Department has benefited because the larger the number of children inoculated by private physicians, the fewer that have to be treated at public expense.

The present campaign of the Surgeon General, Dr. Thomas Parran, to combat syphilis includes a program of education as well as of case finding and of early treatment.

There is a definite trend toward the establishment of a Health Education Division as a part of the official Health Department. It is essential that qualified persons be secured for this task. A knowledge of newspaper publicity, of writing radio script, of preparing lecture material, of writing printed leaflets and booklets, of arranging posters and exhibits is necessary. Such a person should also be well versed in the established medical and surgical facts. He or she might be considered comparable to a public relations representative of a large utility or corporation.

Whether a separate division for health education is set up or whether it is carried on by the Commissioner of Health, I am convinced that there is a definite need for increased emphasis on health education.

It is evident that great strides have been made in the control of disease and the improvement of public health through education. This progress was made possible, in my judgment, by the cooperation of the private practitioner, the public and the health agencies. And yet, greater advances could be made through an enlarged health education program. If the public could be made aware of the splendid accomplishments of their health departments there would be more general acceptance of their work and little difficulty in securing funds for the expansion of public health services.

Hearing Surveys

It is interesting to note that the State of Minnesota, after a ten-year program of hearing surveys and follow-up methods, succeeded in lowering the hard of hearing incidence in their school system from 10 per cent to less than 7 per cent. The cost of these annual hearing surveys has been more than compensated by the savings in the school budget of the costs of the repeating child.

The City of Albany has also profited by a series of hearing tests. For example, during 1935, 1936, and 1937, all the fourth, fifth, and sixth grades, as well as all new incoming pupils to the higher grades, have had their hearing tested. During these years, 3,476 were group-tested. Of these, 322 required 2-A tests and of these last, 126, or 4 per cent of the total tested, were found to have defective hearing. One may reasonably estimate that the figures would be the same for the other grades. Thus, we see that the hard of hearing incidence has been reduced from 5 per cent to 4 per cent in seven years. Incidentally, 53 of these 126 were examined by private otologists, nine were recommended for lip-reading instruction, and over 200 school children had their seatings readjusted to front row locations.

In conclusion, it may be said that hearing tests of the school child should be conducted annually or periodically. These examinations should be divided into two phases, namely: group tests and individual tests. The 4-A as well as the 2-A tests can be done by an otologist, a school physician, a trained technician, a school teacher, or a school nurse. The ear, nose, throat, and sinus examinations should be conducted by a part- or full-time otologist, so as to render the results uniform. There should also be continuous education of the parents, the teachers, and the public in general to the urgent necessity of treating the defects as discovered. May I emphasize finally that it is by early detection of defective hearing with its related pathology, and the prompt attempts to correct these conditions, that the incidence of deafness can be successfully lowered.—E. Martin Freund, M.D., Albany, N. Y.; N. Y. State Jr. of Med., Vol. 39, No. 18, Sept. 15, 1939.

All behavior is related and it is difficult to distinguish between the behavior which concerns the individual alone and that which concerns others. What a man does about his health, for instance, may concern his family, his business associates, the community and even the entire world.—The Purposes of Education in American Democracy, National Education Policies Comm., 1938.

Objective Assessment of the Allergic Child

STANLEY COHEN, M. D.

The Author

Dr. Cohen, New Orleans, La., is a graduate of Tulane University of Louisiana, 1935; fellow in Allergy, Department of Anatomy, Western Reserve University.

CHILDHOOD may be defined as that period of transformation in post-uterine life during which the individual is incurring changes incident to the fulfilment of certain definite potentialities common to the adult of his species. The extent to which these inherent potentialities will be fulfilled is largely modified by the vicissitudes traversed during this period of metamorphosis. The unhindered living object, whether it be plant or animal, sustains an orderly progression during this transformation which we usually refer to as growth. Disorderly progression is in itself, therefore, pathognomonic of the influence of disease, using the latter term in its gross sense. Regardless of the etiology, the modus operandi of all insults that disturb growth is malnutrition. Infection, dietary insufficiency, allergy or any type of constitutional disease is capable of disturbing the process. The effect of any of these obviously depends not only upon the degree and duration of the trauma, but on the vulnerability of the organism at the time. Any of the variations in health that are to be described may therefore be the result of various insults; the demonstration that any one is the causal factor is largely dependent on the elimination of others as a possibility.

Allergy is in a singular position in this respect. First, it is a common disease. Secondly, it is of long duration, not only in its clinical phases, but as we now have reason to believe, the disease may exist in a subclinical stage for some time before becoming manifest. Thirdly, it usually occurs at a time in childhood when the organism is making its most rapid strides, i.e. in the first six years.

In a series of 250 allergic children Ratner reports that 80 percent had manifested their allergy by the age of five.[1]

Analysis of these deviations in health will be discussed in two variants:

1. Growth
2. Maturation

GROWTH

The study of growth in allergic children has convinced us that there is a definite relationship between growth and activity of allergy. This is manifested not only in weight gain, but also in the growth of the skeleton itself.

The child with well developed allergy is usually underweight for his age and light for his height. Weight gain will frequently fluctuate with the activity of allergy. During periods when sensitivity is most pronounced weight gain is least. Children with winter allergy gain less in winter than in summer, whereas children whose allergy occurs chiefly in summer put on less weight in summer than in winter.

Fluctuations in growth of the skeleton occur just as they do for adipose deposits. Fortunately, skeletal growth is not as easily interfered with as the deposit of adipose tissue, but unfortunately a coordinated schedule of growth of the various parts of the bony system exists which, once interfered with, leaves a lasting deformity. For example, if the rate of growth is interfered with at the time when the bones of the face should be growing rapidly, the loss may never be made up, since Nature passes on to the next part of her preordained schedule. Because the bones of the face are growing most rapidly at a time when allergy is most active (i.e. between birth and six years) facial deformity is a common occurrence in the allergic child and persists through the life of the individual. Since the face grows in three dimensions (anterior, lateral and vertical) a disturbance of growth may occur in any or all of them. Clinical experience indicates that allergic children with marked disturbance in facial growth, particularly in lateral expansion, have had more or less continuous allergy since its onset during the first year of life. Those in whom there is found good lateral expansion with only moderate flatness due to disturbance in anterior growth usually give histories which date gack to the second or third years.

The status of facial development may be determined in any individual by the following procedure.

Run the index fingers of each hand from the center of the lower border of the orbit downward over the malar prominences so as to observe whether the normal rounding forward of these structures is present, or whether the face is flat or even concave in these areas. This is a measure of forward growth. Continue downward with the two fingers and press toward the midline, just below the malar prominences. This will indicate

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the width of the upper jaw and is a measure of lateral expansion. Confirmation of the jaw width is obtained by looking into the mouth and observing the height of the hard palate and the width of the maxilla. Disturbance in vertical growth results in a curving upward of the anterior end of the hard palate and is usually evidenced by the forward and upward inclination of the upper incisor teeth.

It is obvious that orthodontic deformities which are so commonly found in allergic children are the result of improper growth of the bones of the face which prevents the proper alignment of the teeth. The pinched face, where lateral growth has been interfered with, commonly spoken of as the "adenoid facies," does not have an etiological relationship to the adenoids. It should be referred to as the allergic facies.

The weight and stature of a child at any one time represents the status of the child at the time of examination. It portrays the summation of all growth-impairing traumata sustained by the child from his conception to the time of examination imposed upon his inherent growth pattern. Status, therefore, tells us nothing regarding the progress a child is making or the effect that any abnormal process has on his health. For this we must depend upon comparison of the progress he makes in any period of time with that of a normal child. This progress in weight or stature per unit of time we refer to as increment.

For comparison with normal children we use figures compiled by the Brush Health Inquiry of the Department of Anatomy of Western Reserve University. These standards are the result of several thousand examinations on healthy Cleveland children.[2] To determine the growth increment for any given period, the status at the beginning and end of that period is translated into the chronological age with which it corresponds. The difference between these two ages will then represent the progress or increment (expressed in years or months) that the child has made in that interval. The study of progress a child makes under treatment by determining his increment in weight and stature not only gives valuable information regarding the child's health, but adds objectivity to the assessment of the results obtained.

MATURATION

The process of maturation implies something aside from growth by the addition of bulk. Certain phenomena in addition to increase in weight and stature occur in the developing individual which herald his approach toward the mature adult of his species. The development of secondary sex characteristics form the best clinical guide as to how the process of maturation is faring. Unfortunately, there is no reliable clinical means of detecting the status of maturation in the child before puberty. The most precise indicator of quantitative changes in maturity is the skeleton and may be ascertained from roentgenograms of the growing ends of bones. For our purposes maturity is assessed from X-rays of the hand using standards compiled at the Brush Foundation and published by Todd.[3]

The status of the child's weight, stature and maturity are determined at regular intervals. From these his increments during those periods may be obtained. It has been our experience that of the three, weight is most easily affected by active allergy, next—stature, while most resistant is maturity. Usually it takes a rather severe degree of allergy to disturb maturation.

SUMMARY

Allergy is capable of disturbing the orderly progress of growth in children. This is manifest in poor increments in weight, skeletal growth and maturity. By disturbing growth of the bones of the face it produces rather characteristic facial deformity. The study of progress in growth not only gives evidence of the constitutional trauma sustained during activity of the disease, but also adds objectivity to the assessment of the result one obtains by treatment.

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Carbon Monoxide Poisoning

Van Deventer has found that about 5 per cent of the automobiles that he tested on the highways had dangerous concentrations (0.03 per cent or more) of carbon monoxide in the air that the driver breathes; "dangerous concentrations," being those that, breathed for many hours, may produce dizziness, collapse, and even unconsciousness and death.

Forbes and associates found that none of their subjects were affected whose blood was 25 per cent saturated, and that their performances in simple tests of reaction times, binocular vision, coordination of the hand and eye, etc., were unaffected by breathing carbon monoxide until their blood was 30 per cent or more saturated. At 45 per cent saturation their performance was only slightly impaired. Subjectively, they felt normal at 30 per cent saturation or less but at 45 per cent both appeared and felt unequal to driving a car because unable to think of many things at once. The pulse, respiration and blood sugar were unchanged up to 30 per cent saturation.—Wm. D. McNally, M.D., Chicago, Ill.; Jr. Mich. State Med. Soc., Vol. 38, No. 10, October, 1939.

The Bulgarian Belladonna Treatment of Post-Encephalitic Parkinsonian Syndrome

HOWARD D. FABING, M.D.

SOME ten years ago the Bulgarian herbalist, Ivan Raeff, of Chipka, became the promulgator of what is now called the "Bulgarian cure" for the post-encephalitic Parkinsonian syndrome. The popularity of this treatment has spread over the Continent, and it is now used on a national scale in Italy. A clinical report by Neuwahl and Fenwick[1] in 1937 has stimulated a widespread investigation of this subject in England in the past two years.

The entire "cure", as described by Ferannini[2], is an elaborate one, but the basic therapeutic agent appears to be a white wine extract of the root and rhizome of a variety of the belladonna plant indigenous to Bulgaria. Definitive chemical and pharmacological studies on this drug are not available as yet, but investigators agree that a decoction of belladonna root made with white wine as a menstruum behaves far differently from an identical decoction in which ethyl alcohol or distilled water is used. These differences can be listed as follows:

1. Repeated instillations of the wine decoction in a cat's eye fails to cause mydriasis.
2. Dogs are able to tolerate 100 cc. of the wine decoction orally without developing toxic symtoms, according to Ferannini.
3. The human being is able to tolerate far larger doses of the wine decoction than of the tincture of belladonna without toxic effects.
4. Striking relief can be obtained in some cases of post-encephalitic Parkinsonism with the wine decoction, even in many patients who have been treated with maximal doses of other drugs of the atropine series.

Clinical reports are accumulating concerning this drug. Ferannini[2] reported marked results with this therapy in 12 patients, especially in respect to muscular rigidity, excessive salivation, and the subjective state of the patient. Gandellini[3] treated 150 patients, in 120 of whom improvement occurred to a greater or lesser degree. Dennis Hill[4] reported improvement in 11 of 14 carefully studied patients. Alcock and Carmichael[5] noted subjective improvement in five patients they studied.

Neuwahl[6] using a new method of preparing the drug has recently reported his results on 118 selected patients. He states that 7.6 per cent were not improved, 1.8 per cent were slightly improved, 24.5 per cent were moderately improved, 22.9 per cent were greatly improved, and 43.2 per cent were listed as symptomatic cures. He stated that of this series, 46.6 per cent were fit for work.

Von Lehoczky[7], in 64 cases, noted improvement in all but three cases, and regarded the improvement as striking in 39.

Widespread investigation has been conducted to determine whether there is any difference between the so-called Bulgarian belladonna root and the ordinary commercial varieties. Bailey[8] finds the drugs similar in composition. Taylor and Hobart[9] note that microscopically the Bulgarian and English roots differ but slightly. Macroscopically the Bulgarian root is less wrinkled and lighter in color. They found the alkaloidal content consistently lower in the Bulgarian product, however. Clinical studies, especially those of Hill[4] and Alcock and Carmichael[5] fail to reveal any difference between the English and Bulgarian varieties in therapeutic effectiveness. Von Lehoczky[7] found no clinical difference between the Bulgarian and Hungarian varieties. Neuwahl[6], however, states that the Bulgarian root seemed more effective and less toxic in a small number of his cases. A recent editorial in the Pharmaceutical Journal[10] states: "The Bulgarian root is not a specific variety but merely an ordinary belladonna root grown in a particular locality, namely Bulgaria. Moreover, this Bulgarian-grown root possesses no advantages over the ordinary belladonna root of commerce".

Attempts to alter the menstruum in the decoction have been made. Henriksen[11] found that the total alkaloidal yield was greater when 12 per cent alcohol was used, but also noted[12] that decoctions made with various ethyl alcohol dilutions

The Author

● Dr. Fabing, Cincinnati, Ohio, is a graduate of the University of Cincinnati College of Medicine, 1931; consulting neurologist, Chronic Disease Hospital, Cincinnati, Booth Memorial Hospital, Covington, Kentucky, and Cincinnati Union Bethel; junior consulting neurologist, Cincinnati General, Good Samaritan, Christ, and Bethesda Hospitals; instructor, neurological division, department of internal medicine, and instructor of physiology, University of Cincinnati College of Medicine.

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failed to produce clinical improvement in seven cases. Hill[4] noted the production of toxic symptoms in six of 14 cases when a decoction made with 10 per cent alcohol acidified with 0.5 per cent tartaric acid was substituted for the wine decoction. Neuwahl[6], however, using a cold extraction method with .75 per cent tartaric acid and 1.0 per cent salicylic acid in water solution obtained a therapeutically gratifying result.

METHODS AND MATERIAL

Wine decoctions of Bulgarian and commercial beleladonna root were made* after the method described by Neuwahl and Fenwick[1]. The Bulgarian root was obtained through Paul Hopfe of Hamburg, Germany, who guaranteed its source. A domestic dry white wine containing 13½ per cent alcohol was used. The method of preparation of each lot was the same, consisting of a six-hour maceration of the ground drug in dry white wine with occasional stirring, followed by a boiling of the mixture for 14 minutes. The mixture was allowed to stand over night to cool and then filtered through filter paper in an ice box at a temperature of 4 degrees C. The filtered product was stored at this temperature until ready for packaging, at which time it was again filtered. In preparing the wines of belladonna root, the proportion of drug to dry white wine used was 5 to 100, i.e., 5 grams of ground belladonna root were used with 100 cc. of dry white wine.

On analysis, the alkaloid and alcohol contents of the two wines were as follows:

	% Alkaloids	% Alcohol
Bulgarian Wine decoction	0.0208	10.8
Commercial Wine decoction	0.0295	11.5

Subsequent batches of the Bulgarian root decoction disclosed total alkaloidal strengths which varied between 0.0173 per cent and 0.023 per cent. Thus, the Bulgarian decoction has never approximated the commercial belladonna decoctions in total alkaloidal content.

PHARMACOLOGICAL TESTS

Experiment No. 1: **Mydriatic effect on the cat's eye.**

Wine extracts of Bulgarian and commercial belladonna, made according to the above formula, and 12 per cent ethyl alcohol extracts of the same roots, prepared in identical fashion were used. Five drops of each preparation were instilled into one eye each of four different cats. The wine extract of Bulgarian belladonna caused no mydriasis at all; the wine extract of commercial belladonna caused a questionable mydriatic effect; the alcohol extract of Bulgarian root caused marked mydriasis, but of a degree less than that caused by an alcohol extract of the commercial root. After a wait of three days the same experiment was repeated, using the other eye of the cats. The results were identical with those on the first occasion.

Thus it appears that a white wine extract of both Bulgarian and domestic belladonna roots reacts differently on instillation in the cat's eye than identical preparations in which 12 per cent alcohol is used as a menstruum.

Experiment No. 2: **The effect of subcutaneous injection in dogs.**

For this observation a white wine extract of commercial belladonna and a 12 per cent alcohol decoction of the same root, prepared in the same fashion, were used.

Fifteen cc. of wine of commercial belladonna root were injected subcutaneously in a dog weighing 19 pounds (9.4 Kilos). The animal became drowsy and quiet and a bit depressed. It did not show any increase in motor activity or irritability, any gastro-enteric symptoms, nor any effect on respiration or body temperature. There was some mydriasis about one hour after the injection.

Fifteen cc. of a decoction prepared from the same commercial belladonna root and 12 per cent alcohol were injected subcutaneously in a dog weighing 20 pounds (9.9 Kilos). Shortly after injection the dog appeared quite uneasy and drowsy and showed signs of marked ataxia; there was enhanced panting and the animal kept howling and barking; there was marked mydriasis. The animal remained in its excited and apparently delirious state for more than 12 hours and showed a recovery to normal in the next 24 hours.

CLINICAL MATERIAL

Fourteen patients were selected for study originally. The majority of the patients were inmates of the Hamilton County Home and Chronic Disease Hospital in Cincinnati, totally incapacitated by parkinsonism. An attempt was made to use the wine extract of commercial belladonna as a medication at first, but this was soon abandoned in favor of the wine extract of the Bulgarian plant because the latter was attended by fewer toxic reactions. The following mode of oral administration was adopted in the 14 patients, after the Italian fashion:

First day	drams one	(4 cc.	at 8 P.M.
Second day	drams two	(8 cc.)	at 8 P.M.
Third day	drams three	(12 cc.)	at 8 P.M.
Fourth day	drams four	(16 cc.)	at 8 P.M.
Fifth day	drams five	(20 cc.)	at 8 P.M.
Sixth day	drams three	(12 cc.)	at 8 A.M.
	drams three	(12 cc.)	at 8 P.M.

The dosage was then increased at the rate of one dram (four cc.) twice daily to the point where toxic symptoms, i.e., dizziness, nausea, ocular disturbances, or hallucinosis, occurred.

No other medications were employed during the course of these observations which extended from May 15, 1938, to May 1, 1939. A common experience in this series of patients was the necessity to drop the dosage down after building it up to the point where side-reactions occurred. For example, one patient (P.F.) complained of

*The author wishes to express his thanks to Drs. E. Gerwe, L. Magid, and N Phatak of the William S. Merrell Company, Cincinnati, for the preparation, and the chemical and pharmacological study of these extracts.

no untoward symptoms until the ninth day of treatment, when he was receiving six drams (24 cc.) of the medication twice daily. At that dosage, marked dizziness occurred, and this complaint remained until the dosage was dropped back to three drams (12 cc.) twice daily, where it has remained since. Any attempt to increase this patient's dosage provokes a recurrence of his dizziness.

During the year other cases have been added to the group. Nine more have been observed for a period exceeding six months, and a total of 23 are reported.

RESULTS

The results were impressive, but apparently not as good as those reported by the Italians. The subjective state of the patient was improved in all cases. Symptoms most improved were those of rigidity, salivation, and postural disturbances, such as posteropulsions and anteropulsions. Palpebral spasms were markedly improved in two cases and completely relieved in a third. The two cases of oculogyric crises were totally relieved. "Cure" is a term which implies a healing of the underlying lesion, and this is not to be expected. The evaluation of "improvement" in a therapeutic investigation where no quantitative laboratory methods are available is more than difficult, for it is totally dependent upon the arbitrary appraisal of the observer. With this in mind, we have tabulated our results as follows:

Marked improvement	9
Moderate improvement	7
Slight improvement	6
Practically no improvement	1
Total	23

Improvement began to occur anywhere from the third to seventh day after beginning of medication. In all cases the greatest gain seemed to occur within the first two or three weeks, after which time the rate of improvement decreased rapidly. Although our observations are of relatively short duration, we feel that improvement is not to be expected after six to eight weeks of treatment.

The dosage finally tolerated varied through a remarkably wide range from two drams twice daily (16 cc.) to 12 drams twice daily (96 cc.). Toxic reactions were primarily a dizziness or light-headedness usually described as a drunken feeling in the head, dryness of the mouth and upper respiratory passages, drowsiness, and very occasionally nausea and vomiting. Confusion and hallucinosis occurred occasionally but this was transient. One patient died of a typical heat stroke on a very hot day in July. Unfortunately, post-mortem examination was not permitted in this case. It is conceivable that the belladonna alkaloids may have impaired his sweat mechanism and thus predispose the patient to his heat stroke.

Concerning the management of these cases, there are some observations of interest. Subsequent study has convinced us that there is no necessity to confine the medication to twice-daily administration, as has been suggested almost universally, but that many patients can tolerate the drug better if it is given in smaller doses at more frequent intervals. No dietary restrictions seem necessary, but all patients report that alcoholic drinks cannot be tolerated with the drug. Two patients reported acute gastric upsets after a single whiskey highball or after a single cocktail. It is generally true, although not universally so, that the patients who can tolerate large quantities of this wine decoction are those who tolerated other drugs of the atropine series in large quantities. Patients who begin this drug come to depend on it, and are universally faithful in taking their medication. One investigator[3] has reported that after some months the drug can be discontinued, and the gains made will be maintained. That is emphatically not my experience.

The management of these patients in an institution is far easier than that in private office practice because in the latter case, when they are seen at infrequent intervals, they occasionally develop a mild toxic confusional state which is completely upsetting to the patient and his household. A mild sedative effect is common with this medication, and these patients come to sleep at slightly longer intervals at night, and many of them like to take a nap in the afternoon, although they were not accustomed to do so formerly. The root of the sweet iris, or calamus root, has been advocated to counteract the almost universal mouth dryness which accompanies the drug, but my patients have found it so bitter that they prefer the dryness to such a taste. Hard lemon-flavored candy drops have proved best in my experience in combating mouth dryness. It is impossible to state which patients will respond best to the treatment, but it is generally true that those under 40 years of age, those whose symptoms have been present but a few years, those with marked rigidity and little tremor, and those who can tolerate large quantities of the drug will do best. Those with unilateral involvement usually do well also. However, the variability in response is so great that one is justified in attempting the drug even when these ideal conditions are not present. Mental symptoms which occasionally accompany the parkinsonian syndrome respond variously to the drug. One young man who had a severe anxiety state with mild parkinsonism has been completely relieved, whereas a girl with impulsive behavior continues to be a problem to her family.

COMMENT

The mode of action of this wine extract of belladonna root is not clear. It has been suggested that the benefits derived from this medication may be due to a potentially stronger action of the decoction of the whole root, the possible presence of intermediate products of the alkaloidal group, or to the presence of "protective" substances which serve to lower the toxicity, equalize absorption, and prolong the effect of the active ingredients. John Uri Lloyd, according to his son, J. T. Lloyd[14], was able to produce effects of this kind repeatedly in making plant extracts. By altering the menstruum employed in extraction—by means of his "differential solvents"—he was able to alter alkoloidal yield markedly. For example, in extracting **nux vomica**, by changing the solvent slightly, he could vary the quantity of strychnine, bruceine, and inert matter (which latter he called the "kindlier parts of plant extractives") at will.

Further work is in progress to attempt to isolate and identify the substance or substances which seem to give this salutary effect in patients suffering from the sequelae of lethargic encephalitis.

A further question has been studied: does this drug benefit parkinsonian symptoms consequent upon cerebral arteriosclerosis? At this time we are able to report four observations. In each case the patient developed a severe toxic confusion on small dosage of the medication, and the therapy was abandoned quickly, although some improvement could be noted in the neurological signs in each case. For example: W. J., a white man of indeterminate age, but apparently circa 80 years old, suffering from generalized arteriosclerosis, hypertension, hypertensive heart disease without decompensation, arteriosclerotic dementia, generalized parkinsonian rigidity, flexion posture, slow shuffling gait, and a bilateral pill-rolling tremor of the hands, was begun on this medication. He was able to tolerate but three drams (12 cc.) twice daily, but on such a dosage his tremor improved to the point of vanishing for hours at a time, his posture became more erect, his gait improved, and he was able to get in and out of a chair without assistance, a feat not accomplished before beginning therapy. However, hallucinosis and confusion occurred repeatedly, and the therapy was dropped.

We have not studied the effects of a wine extract of domestic belladonna root as compared with the Bulgarian product fully. However, we are preparing wine extracts of both these roots diluted to the same total alkaloidal strength to be tested therapeutically on our patients.

SUMMARY

The so-called "Bulgarian treatment" of postencephalitic parkinsonism is reviewed. The manner of extracting the apparently essential medication, a white wine extract of the Bulgarian belladonna plant, is outlined. Pharmacological studies disclose that such a wine extract has no mydriatic effect on the cat's eye, and no toxic effects when injected subcutaneously in the dog, indicating a marked difference in action from an alcohol extract of the same plant. The results on a series of 23 patients treated with this extract are reported. Of the group, nine were markedly improved, seven were moderately improved, six were slightly improved, and one showed practically no improvement. This improvement occurred after maximal treatment with other drugs commonly employed, such as stramonium, hyoscine, etc. The dosage was found to vary widely. Toxic reactions were frequent. Preliminary studies indicate that this preparation is a better therapeutic agent in the treatment of the majority of cases of post-encephalitic parkinsonism than the drugs of the belladonna series heretofore employed. In senile parkinsonism the drug is apparently too toxic for general use.

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13. Personal communication.

CASE REPORTS

M. W., a negro woman aged 31, suffered an acute encephalitis in 1922 and for 10 years has had progressive parkinsonian symptoms characterized by a masked facies, a weak left face, marked tremor of the tongue, bilateral cogwheel rigidity which was worse on the left, flexion posture, and a propulsive gait. She also has an old tuberculous right hip. She had been taking tincture of stramonium for the greater part of her illness. She was placed on the wine of Bulgarian belladonna in increasing doses as outlined above. On the third day she noted that she did not have to walk so fast, on the fourth day she noticed less rigidity in her "paralysed" left arm, on the seventh day she could wash her face with her left hand and could place both heels on the floor. (She had walked on her toes for years.) On the eighth day she could stand straighter without

posteropulsion. On the tenth day she reported that "I was so drunk I fell out of bed last night". On the fourteenth day she abandoned her cane and has not used it since. Now, a year later, she slices bread, washes dishes, and helps serve a table of 32 persons on her ward. Her improvement is striking, and she is happy over her result. Her dosage is 5 drams (20 cc.) twice daily. She complains occasionally of dry mouth and dizziness.

J. B., a 41-year-old negro, has had progressive parkinsonian symptoms for 10 years. He gives no history of an acute illness preceding this disability. He exhibited a completely masked facies, a stare, a flexion of the neck, a tremor of the right hand, a flexion posture, and a slow mincing gait, with some foot drop on the right. His entire day was spent sitting in a chair at his bedside, staring ahead, speechless. He required assistance in eating. His treatment had been tincture of stramonium. On the fourth day of treatment with the wine extract he began to limber up, and his progress was steady and striking. After two weeks he began to busy himself about the ward, carrying urinals for other patients, and sweeping. Now, after a year, he is in charge of the dinner wagon on his ward, pushing it back and forth to the kitchen building, and passing trays. Hat in hand, he now saunters across the "campus" at the Hamilton County Home without revealing any evidence of parkinsonism until he is observed closely, and the relatively immobile face and infrequent blinking give him away. The tremor of his hands has completely disappeared. He was able to tolerate an amazing quantity of the drug, drams 15 (60 cc.) b.i.d., but he was finally stabilized at drams 12 (48 cc.) b.i.d.

P. F., a 55-year-old white man, after a mild attack of influenza in 1918, began to develop parkinsonian symptoms four years ago. He exhibited salivation, a slight weakness of the right face and tongue, a flexion posture of the right arm, bilateral hand tremor which was worse on the right, and a failure to swing his arms in walking. He was under treatment with tincture of stramonium. After beginning the wine extract, he noticed a rapid disappearance of the tremor and flexion posture of his right hand. On the seventh day he shaved with his right hand, using a straight razor, an act not performed in four years. His recovery has been remarkable and has been sustained for a year, but he has never regained the associated movement of arm-swinging on the right when walking. His dosage is drams 3 (12 cc.) b.i.d. Dizziness has been a troublesome symptom.

H. S., a white man of 50, following a mild acute encephalitis in 1924, developed parkinsonian sequelae a year later. This began with tremor in the index finger of the right hand which came to involve both upper extremities and both legs in five years. The patient used stramonium leaf pills for five years, but the involvement was progressive. In 1931 he was forced to abandon his work as a contractor. In 1937 he could no longer feed himself. Improvement with the wine extract was immediate, and within the first week he was again able to feed himself. His dosage is drams 4 (16 cc.) t.i.d., and he has maintained it for six months. He requested his discharge from the County Hospital four months after beginning the medication, and has been working as a decorator's helper, as a wall washer, etc. He is extremely gratified at his result, and although his tremor is not completely gone it no longer incapacitates him.

I. F., a 41-year-old white man, has suffered from mild left hemiparkinsonism for the past six years. He gives no clear account of an acute encephalitis preceding his illness. He was under my care for two years prior to the employment of this medication, receiving dried stramonium leaf and occasional thyroid medication to control obesity. He complained of tremor, rigidity, and flexion posture of his left hand, stiffness of his left leg, and a sensation of tightness in his left pectoralis muscle. His disability in the left hand interfered with his work as a paymaster. On the wine extract he noticed a sudden "limbering up" of his weak, stiff, tremulous left arm on the fifth day. He found that he could take his left hand in and out of his pocket with ease, and that the tense feeling in the left pectoralis was gone, all on the fifth day. There was no change, and his dosage was finally set at drams 6 (24 cc.) b.i.d. After that he fell into the habit of coming to my office and getting the wine extract from my secretary, and I did not see him personally for four months. Then one day his wife came in tears and said that he was acting in a peculiar way. He had become suspicious of her, and had accused her of carrying on with other men. He followed her, telephoned her almost every hour of the day, and no amount of protestation on her part could convince him of her fidelity. This situation had continued for four days when I was consulted. I advised that the medication be withdrawn. Within three days he recovered from his paranoid disturbance, and remained quite well. Within a week, however, the neurological complaints began to recur, and the patient returned after six weeks with all his former left-sided parkinsonian difficulties. He was placed on the medication in smaller doses, dram 1 (4 cc.) t.i.d., and his symptoms again ameliorated as before. At the present time he has no rigidity on the left, no tenseness in his pectoralis and only a fleeting tremor in the left hand. This case illustrates the confusional states that may occur if the patient is not watched closely, and illustrates that the treatment is symptomatic and not truly curative, since, when it is withdrawn, symptoms recur.

DISCUSSION

Meyer A. Zeligs, M.D., Cincinnati: I should like to add to Dr. Fabing's group of cases the results in a series of 10 patients with parkinsonism whom I also have treated with Bulgarian belladonna. The duration of treatment ranged from 4 to 10 months; optimal improvement occurred in 5 to 8 weeks in mild cases, 10 to 12 weeks in the moderately severe cases and 15 to 25 weeks in the severe cases. All of the patients had previously been taking either tr. stramonium, hyoscine, tr. atropine or benzedrine sulphate. The age group varied from 25 to 66 years.

Improvement was measured by subsidence of tremor, decrease in degree of muscular rigidity, and the performance of gross and finer movements as evidenced by changes in posture, gait, speech, handwriting, etc.

The results of this form of therapy in these cases are summarized as follows:

Marked improvement	50% of cases
Moderate improvement	40% of cases
No improvement	10% of cases

*This study was made possible through the courtesy of the Wm. S. Merrell Co., Cincinnati, who imported, prepared and generously supplied the decoction which was used.

The Time of Fertility and Sterility During the Human Menstrual Cycle

THEODORE T. ZUCK, M.D.

THEORIES relating the time of ovulation to the menstrual cycle in women have been completely reviewed in the two preceding papers[1,2]. From evidence drawn from 278 cases in which pregnancy has been attempted by confining exposure first to the reputedly sterile period of the menstrual cycle and then to the reputedly fertile period there is little doubt in our minds that ovulation occurs usually 14 to 16 days prior to the onset of menstruation as Knaus[3] suggested. In an earlier communication[4] the fertile periods in 36 women in whom pregnancy occurred by the single exposure method were shown to be no earlier than the tenth or later than the twentieth days of the menstrual cycle.

Our experience indicates that ovulation takes place but once in the great majority of menstrual months. We have not seen a single case in which there is clear evidence that a second period of fertility exists. This does not preclude multiple ovulation at a single time. If we accept this premise, then we must have a practical method of determining the period of fertility in order to plan or avoid conception. A survey of the methods which have been worked out shows that the biopsy of uterine mucosa, the failure of activity of the uterus following pituitrin injection and the determination of pregnanediol glycuronidate in the urine (although found in castrate women as well as normal women) all identify the passing of ovulation.

These tests are time consuming and therefore not rapidly applicable to the study of the average woman's cycle. They give us the evidence of ovulation after it has occurred. Vaginal smears do not fall quite in this category since the smear begins to show desquamation at the time of ovulation, though frequently as a test it is late in certainty. Electrical potential change occurs at the time of follicle rupture. The use of this procedure is limited by the cost of apparatus and the near hospitalization required to make observations. Basal body temperature, basal metabolism pattern and shift in the vaginal hydrogen ion concentration[5] signal the time of ovulation at the time it is occurring and are therefore of value clinically. Of these the simplest test by far is the temperature method. A rectal temperature taken before arising at approximately the same time every day is recorded in tenths of a degree. Women are taught to take and record these temperatures themselves. At mid-month (Fig. 1) the temperature is generally lowest and this low is followed by a rise, the highest temperatures of the month ensuing. The change in phase of the curve is the time of fertility in normal menstrual cycles. The earlier report of 20 cases[4] indicates that pregnancy occurs when exposures are timed to coincide with this low point, the day before, or the morning after the temperature begins to rise at mid-month. Fifteen additional cases observed since the first report[4] add to the weight of evidence that this is the only time of fertility (Fig. 2).

There are subjective signs of ovarian follicle rupture which are frequently of value to the clinician in amplifying the method of determining ovulation. A pain or slight low abdominal cramp recurring each menstrual month at the reputed time of follicle rupture may signal the moment

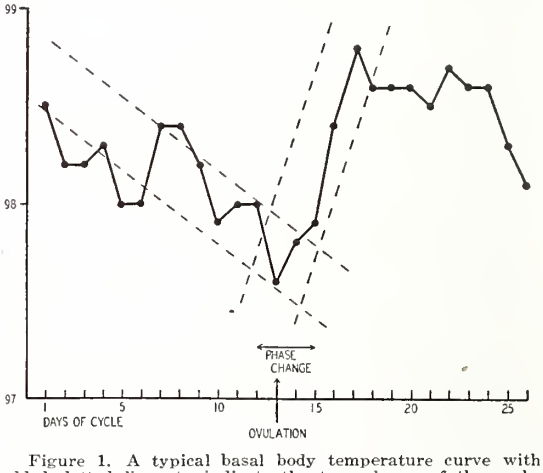


Figure 1. A typical basal body temperature curve with added dotted lines to indicate the two phases of the cycle. Where the phase changes ovulation occurs.

The Author

Dr. Zuck, Cleveland, Ohio, is a graduate of Western Reserve University School of Medicine, 1928; member American Association for the Study of Internal Secretions; New York Academy of Sciences; senior visiting physician, St. Vincent Charity Hospital; associate professor of anthropology, Western Reserve University; acting director, The Brush Foundation.

Read before the Section on Obstetrics and Gynecology, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

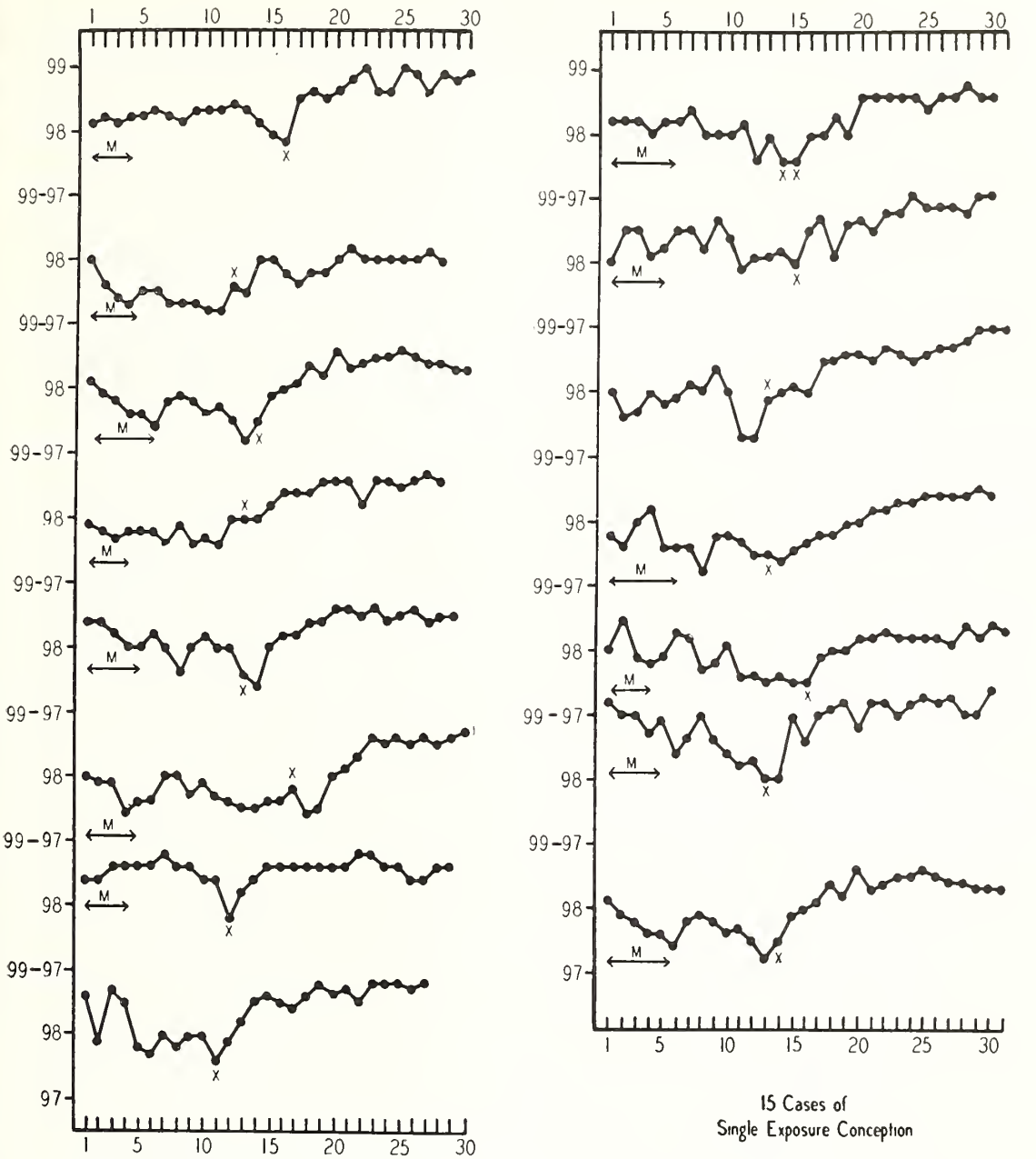


Figure 2. Fifteen cases of exposure limited to the fertile period resulting in conception. Note the persistent high temperature after conception occurs.

the ovum is released and may become discernable as the woman continues to observe herself. A slight clear vaginal discharge is often present the day of ovulation. Variation in ovulation and in the evidence obtainable in any method of study make it necessary to supplement temperature curves or smears or any other test with subjective symptoms when feasible, especially when one is planning an exposure at ovulation.

The problem is quite different when one is trying to avoid conception, as it is possible to use any of the above methods of timing ovulation and at first simply wait until it has been seen to pass before exposure is permitted. After several cycles have been studied, one observes the range of fertility and then allows exposure during the first part of the cycle, not permitting it after the eighth day of the cycle usually or five days before the expected ovulation.

Of the 278 cases studied in this report, 137 have kept temperature records. Of these, 35 cases of exposure at ovulation with pregnancy have been

recorded. An additional 17 individuals became pregnant as a result of exposure at more than one time during the last menstrual month, illustrating the difficulty one has in persuading patients to adhere to such a regime. Many individuals dropped out of the group after a short time because of the effort required to keep up the experiment and still others abandoned contemplatioin of pregnancy. Of the 35 cases with limited exposure during the month of conception a total of 453 exposures during the preceding several months during the sterile periods of the menstrual month did not produce pregnancy. This is an average of 13 such exposures per patient. A typical illustration of the sterile and fertile periods of the menstrual month is illustrated by the following case. (Fig. 3.)

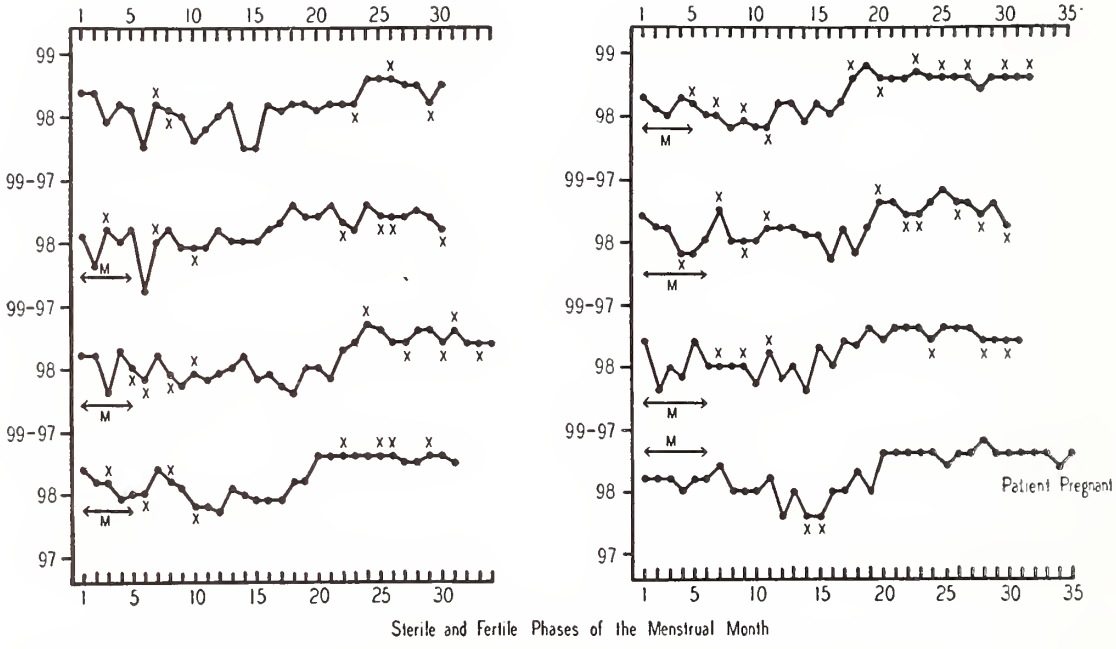


Figure 3. One woman's record showing the use of the temperature curve to avoid conception during seven consecutive months and then to start a pregnancy. X indicates the days when exposure to conception occurred.

Twenty-three patients have come to term without section and show an absolute gestation time of from 252 to 285 days. The average of the group is 268 days which is two days longer than the accepted average of 280 days from the last menstrual period if we assume ovulation occurs generally on the fourteenth day. Ten girls were born in this series and had an average gestation time of 269 days whereas 13 boys were born and had an average time of 267.5 days.

A record of the cases reported in the earlier paper[4] together with the 15 cases added in this presentation shows the following distribution (Fig. 4). It will be seen that there is a bell-shaped distribution of incidence of fertility with a shift somewhat to the right. This is much like the distribution of menstruation as reported elsewhere[4,6].

Experience with the temperature curve leads us to believe that a fairly typical curve indicates normal ovarian activity and that women who do not display a normal configuration of curve have some abnormality of reproductive balance. We believe one should generally regard as anovulatory, curves without typical phasechange, as repeated exposure during such menstrual months does not cause conception. Further, we believe that a failure of the postovulatory high temperature phase is characteristic of low progestin secretion and forewarns of a habitual abortion tendency. Irregularities enable one confidently to advise a patient not to depend on a rhythm method of avoiding pregnancy, as irregularity makes reproductive capability unpredictable. We feel that low grade infections, anemias, even of mild degree, periods of convalescence from pregnancy or abortion and other weakening circumstances upset the regularity of this curve. A small amount of liver and iron together with an adequate high vitamin diet and sufficient rest will frequently improve functional abnormalities and reëstablish a normal basal body temperature curve.

SUMMARY

1. In a study of 278 cases it has been possible to obtain 51 cases of conception with exposure at the fertile period only. Fifteen new cases are reported at this time.

2. In 51 cases sterility occurs before the tenth

and after the twentieth days of the menstrual month. Fertility is highest on the twelfth, thirteenth and fourteenth cycle days.

3. The basal body temperature is a practical method of determining the time of ovulation in women.

4. The absolute time of gestation in 23 pregnancies averages 269 days with a range of 252 to 285 days. The average for boy babies is slightly less than that for girls.

5. In 51 cases fertility ranged from the tenth to the nineteenth days of the menstrual cycle.

6. Normal phase relationship of the basal temperature curve is a measure of normal ovarian

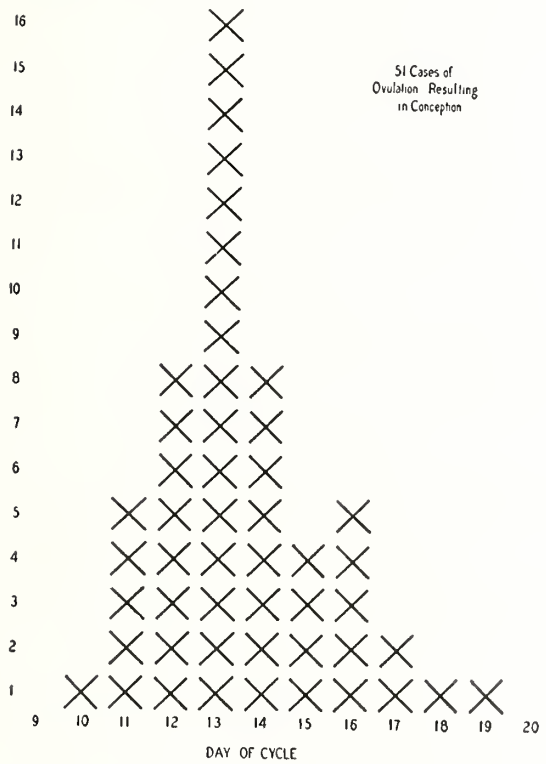


Figure 4. A total of 51 cases in which conception occurred by exposure at the fertile period. Ovulation occurred from the tenth to the nineteenth days with the peak on the thirteenth day of the menstrual cycle.

activity. Thus the curve may be used to discover abnormal ovarian function of either follicular or luteal components.

7. Vigorous health as registered by restoration of normal basal temperature curve in women frequently follows a regime of adequate rest, full diet plus liver extract and iron in moderate amounts.

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Hypothyroidism

Hypothyroidism is one of the commonest forms of endocrine imbalance. Clinically it is easily overlooked and therefore the diagnosis as well as the treatment may alter the symptoms to a stage of confusion. When the physiology of the thyroid is well understood, the clinical phase of the changing physiological factors found in hypothyroidism should lead one easily to its proper diagnosis.

The treatment of hypothyroidism of any type consists merely in the substitution of thyroid extract for the deficient secretion. In children the lowering of metabolism leads to stunted physical, mental and sexual development.

The histopathological changes that occur in hypothyroidism are of more than passing interest. In a simple colloid goiter the acini are abnormally distended with colloid and their lining epithelium is flattened. In the diffuse hyperplastic goiter, the acinar epithelium is columnar, hypertrophic and hyperplastic. The slow changes of the epithelium in the stroma also brings about definite physiological alterations as the basal metabolic rate, the blood cholesterol, chemical changes in all the cells of the body, especially reactions involving iodine, calcium, sodium chloride and phosphorus, inhibition of the sympathetic nervous system and the impairment of catalysis. It influences the functions of the pituitary, the gonads and the pancreas.

The treatment of hypothyroidism is simple if the patient is observed carefully and frequently until a maintenance dosage is established. There need be no fear of the use of thyroid. The method of choice is to gradually increase the dose of thyroid until mild symptoms of toxemia are produced. The maintenance dose is just below this level. Any form of thyroid may be used. I prefer beef thyroid with .08 per cent iodine. The ordinary prepared gland may give eczematous reactions at times which may be misleading. When the replacement is sufficient to restore the patient to normal, I usually calculate the dosage on the basis of the blood cholesterol and the metabolic rate. It is well to bear in mind that any method of calculation is unreliable. The important point in the treatment of hypothyroidism is to keep patients on maintenance dosage even after the metabolic rate has reached a normal level.—Victor Henry Bergmann, M.D., Kansas City, Mo.; Jr. of the Mo. State Med. Assn., Vol. 36, No. 10, Oct., 1939.

Sulfanilamide and the Negro

MAURICE A. SCHNITKER, M.D.

DURING the course of sulfanilamide therapy there occurs ordinarily a slight to moderate drop in the hemoglobin and red blood cells in the peripheral circulation. Whether this mild anemia is due to the drug, or to the infection for which the drug is being given, cannot be stated always with certainty.

Acute hemolysis of the red blood cells, on the other hand, with the rapid development of hemolytic anemia, is less common and it is thought to be due to drug sensitivity or to an idiosyncrasy on the part of the patient. In susceptible patients who are going to develop such an anemia, Long and Bliss[1] interpret the action of the drug as causing injury to the membrane of the red blood cells, thus permitting hemolysis to take place. When it occurs, it has been found that the hemolytic process continues its course regardless of the addition of new blood and it may go on uninterrupted even after the blood and tissues are free of demonstrable sulfanilamide. The complication of acute hemolytic anemia commonly occurs within one to five days after treatment has been begun and even after relatively small doses of the drug. It is often preceded for some hours by fever, and associated one finds usually a variable degree of leukocytosis, reticulocytosis, and jaundice, with bilirubinemia and urobilinuria. The treatment consists in immediate withdrawal of the drug, blood transfusion, and the forcing of fluids. It has been suggested that along with forcing fluids, the urine should be kept alkaline to facilitate the excretion of free hemoglobin. The drug is not to be resumed since patients who have had an acute hemolytic anemia in the course of sulfanilamide therapy are almost certain to have this toxic manifestation again if they are given sulfanilamide a second time.[1]

That the negro may be particularly susceptible to the development of such an "acute hemolytic anemia" following sulfanilamide therapy has received no attention in the numerous studies already on record concerning this drug and related compounds. In the several reviews that have been made on the subject of sulfanilamide[1,2,3,4], there is no mention that the drug may be more toxic for negroes than for whites. A suggestion of this was made by the writer in a recent supplement in Oxford Medicine[5], and since then more cases have been reported to make it appear to be more than a mere coincidence.

In the original article on hemolytic anemia following sulfanilamide therapy by Harvey and Janeway[6], two of the three cases cited were negroes. This was followed by the report of Willis[7] in which a negro boy four days old developed this complication. Then the striking example of this possible racial factor came with the communication of W. B. Wood, Jr.[8] in which he reviewed the cases of 522 patients that had received sulfanilamide of which 21 (4 per cent) developed acute anemia. Sixteen of these 21 cases were in negroes! Wood included in his group the three cases reported previously by Harvey and Janeway, but he does not mention the high incidence of the colored race that developed this complication. Further, another striking thing in Wood's article is the fact that in five cases in which there was a recurrence of hemolytic anemia, all were negroes.

Price and Myers[9], reporting on the use of sulfanilamide in the treatment of pneumococcus pneumonia, mention that six of 115 patients developed acute hemolytic anemia. In a recent communication[10], Dr. Myers states that he has now observed 12 cases of acute hemolytic anemia following sulfanilamide therapy, 10 of which were in negroes. Three cases that the writer has observed were all in negroes. One of them died (case Peter Bent Brigham Hospital, unpublished).

The first case of acute hemolytic anemia to be reported that had a fatal termination was presented by H. Wood[11]. This was followed recently by the second fatality reported by Koletzky[12]. Again, of interest is the fact that **both were negroes**. Some of the other cases reported, as by Kohn[13] (1 case), Jennings and Southwell-Sander[14] (3 cases), Nelson and Scott-Young[15] (1 case), Rosenblum[16] (1 case) and Antopol, Applebaum and Goldman[17] (2 cases) were in whites, or presumably so. These do not presume to cover all of the cases recorded, for numerous times mention is made of single instances of acute hemolytic anemia following sulfanilamide

Submitted September 11, 1939.

The Author

● Dr. Schnitker, Toledo, Ohio, is a graduate of the University of Michigan Medical School, 1931; diplomate, American Board of Internal Medicine; recent chief resident physician at Peter Bent Brigham Hospital, Boston, and assistant in medicine at Harvard University Medical School.

therapy, but often there is no description of the case. Undoubtedly many cases have occurred that have not been reported, and until more instances have been accumulated, one cannot say with certainty that sulfanilamide has a more than ordinarily toxic effect on the hematopoietic system of the negro. However, from the total of 47 cases of acute hemolytic anemia complicating sulfanilamide therapy mentioned above, 32, or 68 per cent., occurred in negroes. This seems significant.

From this it would appear that extra caution should be exercised in regard to the possible development of acute hemolytic anemia when administering sulfanilamide to negroes.

2360 Monroe St.

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In 1894 Hermann M. Biggs said, "The tubercle bacillus is the sole exciting cause of pulmonary tuberculosis and of every form of tuberculosis, but it must not be assumed that it is the only factor in the causation of this disease. In every infectious disease it is the relation between two opposing sets of forces which determine the question of susceptibility. On the one hand there is the number and virulence of the germs and on the other, the resistance of the body to these germs."—Biggs, H. M., The Forum, 1894.

Sulfanilamide and Sulfapyridin in the Treatment of Various Infections

Diseases in Which Sulfanilamide Has a Proved Value:

1. Streptococcic infections
2. Meningococcic infections
3. Gonococcic infections
4. Urinary tract infections due to B. coli, B. influenzae, B. proteus, Staphylococcus aureus
5. Pneumococcic meningitis
6. Experimental malaria

Diseases in Which Sulfanilamide Is of Suggestive Value:

(Experience too limited or results not conclusive)

1. Undulant fever
2. Pylephlebitis suppurativa
3. Trachoma
4. Lymphogranuloma inguinale
5. Chancroid
6. Actinomycosis
7. Typhoid fever and paratyphoid fever

Diseases in Which Sulfanilamide Is Ineffective:

1. Subacute bacterial endocarditis
2. Staphylococcic infections
3. Rheumatic fever
4. Influencing the rash of scarlet fever
5. Preventing a recrudescence of rheumatic fever following hemolytic streptococcic infection
6. Sterilizing local foci of hemolytic streptococcic infection

Diseases in Which Sulfanilamide Has Been Used Prophylactically:

1. Preventing hemolytic streptococcic infection in rheumatic subjects, and in pregnant women who are about to go into labor.

—Chester S. Keefer, M.D., Boston, Mass.; Cal. and W. Med., Vol. 51, No. 2, Aug., 1939.

Patch Test for Children

One hundred and sixty-nine children at Sea View Hospital, Staten Island, New York, were given the Mantoux intracutaneous tuberculin test together with the tuberculin patch test and it was found that only one failed to react to the patch test who reacted positively to the Mantoux test. One hundred and eighteen additional children were tested in the pediatrics service at Mount Sinai Hospital in New York and the Mantoux test revealed no case which had not been discovered by the patch test. The value of the patch test for young children appears to be firmly established and it has the additional advantages that it never provokes a general reaction and never frightens either the children or the parents.—H. Vollmer, M.D. and E. W. Goldberger, M.D., Amer. Jr. Diseases of Children, Sept., 1938.

Rocky Mountain Spotted Fever in Ohio

Report of a Case

NATHAN SHAPIRO, M.D. and WILLIAM F. ASHE, M.D.

ROCKY Mountain spotted fever has been of little more than academic interest in Ohio since it was first accurately described by Maxey in 1899[1], but should now be included among the acute infectious diseases which may present themselves for prevention, diagnosis and treatment by Ohio physicians.

Three authentic cases of this disease are now on record at the Cincinnati General Hospital. Two of these were observed simultaneously on the Pediatric Division and have been reported[2]. The third, admitted to the Medical Service in August 1938, approximately one year after the first two cases were seen here, is described in detail below. Two of these patients contracted their diseases in a small tick-infested, wooded area near Fayetteville in Brown County, Ohio, while the third case originated in Lebanon, Warren County.

Since the identification and description of this tick-borne disease in the Bitter Root Valley, its geographic distribution has been found to be widespread throughout many parts of the United States. It is a definite menace to the health and often the life of our population, and it is obvious that recognition of the disease and efforts to eradicate foci of infected ticks are of considerable importance.

TYPES OF SPOTTED FEVER

Rocky Mountain spotted fever is an acute infectious disease, transmitted to man by the bite of infected ticks[3]. It is characterized clinically by sudden onset, with chill, headache, severe aching pain in bone and muscle, a macular eruption becoming petechial or purpuric, appearing first on the wrists, ankles and back, later becoming generalized, and by a continued high fever terminating by lysis; pathologically, by an infectious endangeitis, chiefly of the peripheral vessels. The etiological agent is a minute, intracellular, pleomorphic, bacterium-like organism belonging to the Rickettsia group. Geographically, there are two types of the disease; the Western type and the Eastern type. The latter is, in general, somewhat more mild than the former. The Eastern type of Rocky Mountain spotted fever was first accurately described and clinically differentiated by Rumreich, Dyer, and Badger[4] when they were investigating endemic typhus in the Eastern states in 1930. Prior to 1931 only three cases of Rocky Mountain spotted fever had been reported east of the Mississippi River[5].

The mortality of the Eastern type of the disease is said to be approximately 25 per cent[4], and once contracted, the treatment is purely symptomatic. Diagnosis is made from the history of tick-bite, the presence of severe illness of sudden onset, severe pains in the head, bones and muscles, the presence of a diffuse petechial rash, and the demonstration of positive agglutination of B. proteus X 19 by the patient's blood serum in very high dilution. In non-fatal cases the disease usually runs its course in three weeks, or slightly less; those terminating fatally usually do so between the sixth and the twelfth day.

Once considered, diagnosis of the disease presents little difficulty. Prior to the appearance of the rash, however, the signs and symptoms are compatible with any acute infectious disease and definite diagnosis is impossible. After the eruption appears, severe measles must be considered; this can be ruled out by the absence of cough, coryza, conjunctivitis, and Kloplik spots. The rash of scarlet fever is usually quite different in character and order of distribution, while the tongue and throat are charactertistic. Typhoid fever may rarely be confused with spotted fever, but the slow dicrotic pulse, positive blood, urine and stool cultures, and rising Widal titer serve to distinguish it. Meningococcemia is more likely to be confused with spotted fever, but here very frequently there is an associated meningitis with definite neurological and positive spinal fluid findings. Occasionally there may be an associated

The Authors

● Dr. Shapiro, Cincinnati, Ohio, is a graduate of University of Cincinnati College of Medicine, 1937; intern and junior assistant resident in medicine at Cincinnati General Hospital; assistant in medicine, department of internal medicine, University of Cincinnati.

● Dr. Ashe, Cincinnati, Ohio, is a graduate of Western Reserve University School of Medicine, 1936; intern in medicine University Hospitals, Cleveland; assistant resident in medicine, Cincinnati General Hospital; assistant in medicine, department of internal medicine, University of Cincinnati.

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meningococcic arthritis and a positive blood as well as spinal fluid culture for the meningococcus. Any fulminating septicemia may simulate Rocky Mountain spotted fever but repeated blood cultures are positive in the former and negative in the latter. The development of agglutinins against certain strains of **B. proteus** (Felix-Weil reaction) serve further to differentiate spotted fever from the above diseases.

The disease most likely to be confused with, and the one which most closely resembles spotted fever, is typhus fever. These are most difficult to differentiate, especially in locations where both are known to exist. The clinical differences may be summarized as follows: typhus fever is transmitted by the body louse and rat flea, and the history of insect bite or crushing of an insect, as opposed to a history of tick bite, will serve as a lead. Seasonal variation is another consideration; whereas spotted fever is a disease of spring and summer, typhus fever is prevalent in late summer and winter. Spotted fever occurs in people living in rural districts or with rural contacts, while typhus fever occurs in urban dwellers and in crowded unsanitary environment. Disturbances of the central nervous system are more severe in spotted fever and mortality much higher; while bronchitis and bronchopneumonia are more frequent complications of typhus fever and the chief cause of death. In typhus fever the rash appears first on the chest and shoulders and extends over the trunk before appearing on the arms and legs, whereas in Rocky Mountain spotted fever it usually appears in the reverse order—intiating on the wrists and ankles then spreading to the back. Splenomegaly is not nearly so constant, and more frequently absent, in typhus fever. The Felix-Weil reaction is positive in both diseases. The only unequivocal method of differentiation is animal inoculation. Guinea pigs should be inoculated and cross-immunity tests[6] carried out with known strains of the two viruses. Swelling of the scrotum of guinea pigs due to typhus is produced by inflammation of the tunica vaginalis while in Rocky Mountain spotted fever it is produced by thromboses of blood vessels of the skin and deeper structures of the scrotum.

TYPE DIAGNOSIS

The Eastern type of spotted fever is transmitted by the Eastern dog tick, the **Dermacentor variabilis**[7, 8], which is quite prevalent in the New England states, Middle and South Atlantic states, District of Columbia[8], and probably throughout the area east of the Mississippi. The increasing frequency with which Rocky Mountain spotted fever is being recognized in the various Eastern states indicates the wide distribution of **Dermacentor variabilis.**

Clinically, the Eastern type of the disease varies from the Western only in that it runs a milder course with lower mortality. Immunologically, they cannot be distinguished, for each type protects against the other[9]. Pathologically, the Eastern type usually produces focal brain lesions which are not observed in the Western type[10].

In laboratory animals the two types behave quiet differently[9] and this furnishes the most reliable method for type determination. Mortality in guinea pigs inoculated with the Eastern type virus is about 25 per cent[9], while death is the rule with the Western type virus. Necrosis of the scrotum occurs frequently in the latter, but is rare in the Eastern type. Monkeys show similar but less severe reactions when inoculated with the Eastern virus as compared with the Western, and the mortality differences are approximately the same as for guinea pigs.

CASE REPORT

R. C. (No. 99852), a thirty-six year old storage battery worker, was admitted to the Medical Service of the Cincinnati General Hospital on August 6, 1938, complaining of a rash of three days' duration.

The patient was seriously ill and somewhat delirious, and spotted fever was immediately suspected. The history obtained from his wife revealed that this man had been blackberry picking on five occasions, the last approximately 12 days prior to admission. All five of his outings had taken place in a small wooded area near Fayetteville in Brown County where ticks are known to be abundant. There was no definite history of tick bite and no evidence of one found on admission.

His illness began abruptly 11 days before admission when he returned from work complaining of mild fever and rather severe generalized aching, especially in the muscles of the back. That evening he suffered a severe shaking chill, lasting 10 minutes, followed by a high fever. The following morning he remained at home and complained of fever, anorexia, backache, and moderately severe headache. The family physician was summoned, and found the man's temperature to be 105 degrees F., but there were few or no physical signs to account for this fever. His condition remained relatively unchanged for the next six days; fever ranging from 102 to 105 degrees F. daily; severe frontal headache, backache, anorexia, and constipation dominated his course.

Early on the morning of the eighth day of illness he was awakened by nausea, vomiting and tinnitus apparently occasioned by medication taken at bed time (5 grains of quinine sulphate). At this time his wife first noted a bluish-red eruption on his back and buttocks which became generalized within 24 to 36 hours. On the two nights prior to admission the patient was delirious. On August 6th, 11 days after the onset, he was admitted to the hospital. The remainder of the history is not relevant.

Physical Examination: Temperature 104 degrees F., pulse 120 and of good quality, respirations 32 per minute and blood pressure 110/70. The patient was an extremely well developed and well nourished white man of 36 years, who appeared acutely and seriously ill. He was delirious and complained of headache. His skin was cov-

ered with a generalized discrete purpuric rash. No areas were completely exempt. The rash was most abundant on the lower extremities, and less on the face and abdomen. The buccal mucosa was involved by a petechial enanthem and the oral cavity was quite dry; the pharyngeal wall was inflamed.

The neck was resistant to flexion but not to rotation. The lymph nodes of the anterior cervical chain were enlarged slightly, discrete and tender; there were non-tender small nodes palpable in the axillae and inguinal regions.

Respirations were rapid and shallow, and a few coarse, widely-scattered rales were heard. Examination of the heart and lungs was otherwise negative, except for a marked tachycardia.

The abdomen was protuberant, with moderately thick panniculus, and there was voluntary guarding throughout. Peristalisis was normally present. The liver edge was palpable one finger's breadth below the right costal margin and slightly tender. No other organs or masses were felt. There was no evidence of orchitis.

The configuration, posture, strength and tone of the extremities was normal. The abdominal reflexes were absent and the deep tendon reflexes all hypoactive. There was a bilateral sustained ankle clonus. No other evidences of neurologic disease were found.

The remainder of the physical examination was negative.

Laboratory Data: Rbc. 4.5 M. Hb. 14.0 gm. Wbc. 10,200. Differential normal. Urine showed a heavy trace of albumen but was otherwise normal. The stools and blood Kahn were negative. Lumbar puncture showed initial spinal fluid pressure of 190 mm. of H_2O, the dynamics were normal, and the clear fluid contained no cells. The Pandy reaction was positive with two drops of spinal fluid, the protein content 32 mgm. per cent, and the chlorides 645 mgm. per cent. The blood and spinal fluid cultures were negative. X-ray examination of the chest revealed no abnormal shadows. The white blood count rose to 12,750 on the second hospital day and then gradually fell to 5,200 with a normal differential throughout. The red blood count fell from 4.54 million to 3.0 million during his illness. Routine agglutinations for typhoid, paratyphoid, dysentery, tularemia and undulant fever were all negative.

On the second hospital day the Felix-Weil reaction was done in Dr. Lee Foshay's laboratory with the following results:

Aggluination with **B. proteus** OX19 1:10,240 (complete)

Agglutination with **B. proteus** OX2 1:160 (complete)

Agglutination with **B. proteus** OX2 1:640 (partial)

Dr. R. E. Dyer of the U. S. Public Health Laboratories in Washington, D.C., reported that the patient's serum, taken on the sixth hospital day, showed complete positive agglutination of **B. proteus** OX19 in a dilution of 1:10,240. He also found that the patient's blood serum gave complete protection in guinea pigs against the Rocky Mountain spotted fever virus, but failed to protect against the virus of typhus fever.

Dr. R. R. Parker at the Rocky Mountain Laboratory in Hamilton, Montana, obtained the following agglutination reactions on serum taken on the seventh hospital day:

Proteus Strains	Serum Dilutions 1:10	1:20	1:40	1:80	1:160	1:320	1:640	1:1280	1:2560	1:5120	1:10240
OXK	2										
OX2	4	4	2								
HX2	4	4	2								
OX19	4	4	4	4	4	4	4	4	4	4	2
HXL	4	4	4	4	4	4	4	4	4	2	
XLL	4	4	4	4	4	4	4	4	4	4	2

4 equals 75—100% agglutination.
2 equals 25—50% agglutination.

Because of a shortage of guinea pigs we were unable to carry out elaborate animal experiments, but three guinea pigs were inoculated with 3 - 4 cc. of whole blood obtained from the patient on his sixth hospital day (17th day of disease). During the third to fifth days after inoculation the pigs showed a temperature elevation of 1 to 2 degrees F. and were not as active as previously. This fever subsided and the guinea pigs showed no further evidence of infection. The patient had been given sulfanilamide previous to the withdrawal of blood for these tests. Just what part, if any, this drug may have played in the failure of the animals to contract the disease, or whether they had an extremely mild infection, we are not prepared to say[2]. Two and one-half weeks later one of the pigs was killed but failed to show any definite pathological changes. The remaining pigs, plus two which were injected with saline suspensions of the patient's brain and spleen obtained at necropsy, were sent away for immunity studies, but unfortunately these were never completed.

Hospital Course: On admission the patient was given sulfanilamide. The blood sulfanilamide concentration was kept at a level of 9 mgm. per cent, but the drug was discontinued after four days because the patient showed no improvement. He became more irrational and it was necessary to restrain him. He was incontinent of urine, but constipation required daily enemata. The rash slowly faded from above downward, leaving areas of pigmentation, and at death was completely gone except for these residual stains. His neck became less resistant though never completely supple, but no signs of true meningitis developed.

Temperature varied between a low of 102 degrees and a high of 106 degrees F. except on his sixth hospital day when it dropped to 101 degrees F., but again rose to 104 degrees F. terminally. The pulse varied between 120 and 130 per minute except when it fell correspondingly with the temperature on the sixth hospital day, and rose to 130 before death. Respirations varied from 30 to 56 per minute throughout his course; blood pressure was well maintained until the end.

On the fifth hospital day the patient's sclerae showed a faint icteric tint which did not increase. On the sixth hospital day he appeared to rally, and for a few hours was quite rational. At this time he said that his headache was gone and com-

We are grateful to Dr. R. E. Dyer, Washington, D.C., Dr. Lee Foshay, Cincinnati, Ohio, and Dr. R. R. Parker, Hamilton, Montana, for their assistance in completing laboratory studies on this case.

plained only of severe weakness. On the seventh day he sank into deep coma, with no localizing neurological signs, and died in this state on his eighth hospital day (19th day of disease).

Autopsy Findings: Autopsy was performed four hours after death by Dr. S. Tashiro, to whom we are indebted for his careful study of this case. On gross examination the body and organs all appeared quite normal except for the spleen which was firm, purple in color, acutely congested, and weighed 350 grams. The rest of the organs showed only evidence of severe toxemia.

The microscopic picture was one of capriciously-scattered, acute, necrotizing thrombo-arteritic lesions in the pancreas, testes, brain and the capsule of the suprarenal glands. No lesions were found in the heart, lungs, kidneys, or liver. The skin was not studied pathologically.

DISCUSSION

This is undoubtedly a case of Rocky Mountain spotted fever, Eastern type, in a man of 36 years, ending in death. The case is somewhat unusual from several standpoints. First, there is no history of tick bite and no evidence of any could be found on careful search. Unquestionably he was bitten and did not know it. Second, it is rare for the rash to develop on the eighth day of the disease; it usually appears on the fifth, sixth or seventh days. Dr. Dyer tells us that it has been reported as appearing as late as the ninth day, but this is extremely rare. Third, the patient lived 19 days. If the disease is to be fatal, it is usually rapidly so, death occurring from the sixth to the twelfth day. Patients who live through the fourteenth day usually recover. Usually the temperature begins to fall on the fourteenth, fifteenth, or sixteenth days, and recovery is complete by the end of the third week. This man's fever began to fall on the sixteenth day, but soon rose again with no evidence of new acute manifestations of the disease. Nothing was found at autopsy to indicate that his death had been caused by any complications so we are forced to attribute death to Rocky Mountain spotted fever alone.

SUMMARY

A case of Rocky Mountain spotted fever is presented. The diagnosis was firmly established by agglutination reactions and by cross immunity tests. This case is the third of its kind to be reported in Ohio.* Sulfanilamide therapy was not effective in its treatment.

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*Correspondence with Dr. R. H. Markwith, Ohio State director of health, revealed that 12 cases of Rocky Mountain Spotted Fever had been reported to the state department of health since 1936, but these have not appeared in the literature.

Two more cases of Rocky Mountain Spotted Fever have been seen at the Cincinnati General Hospital very recently. —W. F. A.

Rocky Mountain Spotted Fever

In the human the disease becomes manifest during the summer, the active period of the tick. The incubation period is variable but will average about a week. The onset is usually fairly abrupt and often with a chill after which fever is continuous, up to 103° or 105°F. Headache, delirium, aching of extremities, and a macular or petechial rash appearing on the third to fifth day is seen. The peculiar thing about the rash is its initial appearance on the extremities which later spread to face and trunk. In favorable cases the symptoms abate about the twelfth or fifteenth day and the rash gradually disappears. In fatal cases the patients become more toxic, delirious, comatose and the rash becomes purpuric and even hemorrhagic. Bleeding may occur from intestine or stomach. Edema of the face is often seen.

Diagnosis.—Measles, typhoid, meningitis and purpura hemorrhagica usually can be ruled out easily. The similarity of typhus makes it more difficult, but the occurrence of typhus more often among food handlers and the very poor, the location of the rash primarily on the trunk, the almost invariable presence of the Weil-Felix reaction, in contradistinction to the rural incidence of spotted fever, the initial rash on the extremities, a history of tick bite, high mortality, and results of guinea pig inoculation and cross immunization will usually establish the diagnosis.

Mortality.—This varies greatly in different sections of the country, ranging from 76.8 in Montana to 3.5 per cent in Idaho. Of 93 scattered cases over the country, especially in the East and South, 22 per cent of the patients died. It is estimated that about 100 deaths a year are caused by spotted fever.

Treatment.—Administration of the prophylactic vaccine of Spencer and Parker is the only sure way of avoiding the disease in infected areas. This vaccine, made by collecting distillate from the ground bodies of infected and activated wood ticks, has been tried in 30,000 cases with only eight reported deaths, about 75 per cent less mortality than the unvaccinated cases. The immunity lasts only one season.—W. S. McDaniel, M.D., Houston, Texas; Tex. State Jr. of Med., Vol. XXXV, No. 5, Sept., 1939.

Insulin As a Substitute For Tube Feeding

JOHN SMITH, M.D.

EVERY psychiatric institution has a number of patients who persistently refuse to eat. The usual routine in most hospitals is to tube feed these patients. For the past year we have handled this situation in a way which I believe is superior to any method we know. This report includes twenty-nine cases selected from our receiving ward and they represent our most difficult feeding problems. We have used the same method on convalescent cottages but these patients are not included in the report. Of the 29 cases, twelve of these are involutional melancholia. (A report of seven of these cases follows):

The Author

● **Dr. Smith, Sebring, Ohio, is a graduate of the University of Louisville School of Medicine, 1935; member Mahoning County Medical Society.**

CASE REPORTS

E. V.—Admitted April 12, 1938, weighing 80 pounds, and at first had to be fed by nurses. On June 11 she weighed 92 pounds, and has been feeding herself for the past week.

G. B.—Admitted in February, 1938, weighing 90 pounds, and had to be fed at first. Released for trial visit May 7, 1938, weighing 100 pounds.

E. D.—Very agitated case admitted March 25, 1938, and has gained two pounds.

L. K.—Was started on insulin October, 1937. She also has gained in weight and has been eating very well. Has not required insulin for her appetite for last two months.

J. L.—An extremely agitated case started on insulin in October, 1937, and has gained eight pounds.

B. N.—Did not make a favorable response. Patient was in poor physical condition at time of beginning of medication.

F. O.—Has not shown any change neither with nor without insulin. The other four in this group have all shown a favorable response.

MANIC DEPRESSIVES

H. D.—Had to be tube-fed two or three days before she began to eat. She was a very depressed case.

M. F.—Admitted December, 1937. An extremely excited manic, required two tube feedings following admission, but with insulin soon began to eat well.

M. M.—An excited manic at time of admission, who went into a depression. The insulin was given during period of depression and in this case it certainly was a value in making patient eat.

M. V.—Greatly depressed on admission, would not eat, began eating well within three days after insulin started.

M. P.—A very depressed case who had taken very little food for two weeks previous to admission. In less than three days after insulin was started she began to eat very well.

(The other four cases in this group are of no special importance but all made a very satisfactory response to insulin.)

DEMENTIA PRAECOX

R. T.—Was an extremely negativistic and catatonic case. She received twenty units of insulin before morning and noon meals every other day. Without insulin this case would absolutely require tube-feeding.

M. H.—A tubercular suspect according to X-ray findings. She has stimulated her appetite sufficiently to keep her from losing weight; in fact, she has gained about two pounds a month.

G. D.—An extremely resistive and catatonic case on admission. Was eating very well in less than two weeks after medication was started.

The other two cases in this group gained weight while getting insulin. (Two cases were arteriosclerotics.) One case was diagnosed pre-menopausal psychosis. This patient's appetite made a very satisfactory response to insulin and showed a gain in weight of one pound a week.

This method is of the greatest value in involutional melancholia cases but is also valuable with the depressed manics and dementia praecox. Our routine is to give 10 to 20 units of insulin before the morning and noon meals every other day. The object for using this routine is to prevent insulin shock. I have had no case of insulin shock since we gave insulin only every other day and did not give it before evening meals. This does not eliminate tube feeding entirely but greatly reduces the number of tubings required. The hazards of tube feeding are obvious. Insulin should not be used on patients whose general physical condition is very poor and sometimes it does not work on extremely disturbed cases.

The value of this method is the greatly reduced number of tube feedings required and second, the patient's general condition remains much better if they are given a regular diet instead of liquids as would be given with tube feeding.

*This work was done at The Massillon State Hospital, Massillon, Ohio.

Submitted May 22, 1939.

Case Record Presenting Clinical Problems

Poultry Worker With Ulcer on Finger. Axillary Lymphadenitis and Symptoms of Septicemia

HARRY L. REINHART, M.D.

A WHITE man, 31 years old, who was a poultry worker, suddenly became ill with chills, high fever, vomiting and generalized muscular pains one evening. When seen by a physician at his home the following morning he complained of a severe headache and generalized muscular pains, which were most intense in the calves of his legs. His temperature was 104° F. There was a small round, apparently healing ulcer at the base of the little finger of his left hand. The lymph nodes of the left axilla were slightly enlarged and tender on palpation. The clinical picture in general was suggestive of septicemia, although the symptoms appeared out of proportion to the ulcer of the finger, which was of a week's duration, and the lymphadenopathy. Two weeks prior to the onset of his illness he had returned from a fishing trip in Canada. There seemed to be little evidence connecting the onset of the ulcer with any event of this trip, and nothing specifically could be elicited as the probable cause of the ulcer. Aside from the ulcer, the suddenness of the onset, headache, chilliness, and generalized muscular pains were suggestive of "influenza", but there was no respiratory involvement. Manifestly more time was needed for observation of the evolution of the disease. Meanwhile blood was drawn for culture and laboratory tests for typhoid, paratyphoid, undulant fever and tularemia; wet dressings and heat were applied to the ulcer on the left hand and axilla, and sulphanilamide was administered for a possible streptococcic septicemia.

During the second and third days of his illness the fever persisted, prostration increased and he was periodically comatose. Anorexia was marked; he was nauseated and occasionally vomited a coffee ground like material; marked congestion of his eyes,—hemorrhagic "fever blisters" on his lower lip and sore throat were present. He was able to retain sweetened tea and fruit juice in small amounts. The ulcer on his left hand and the enlarged axillary lymph nodes appeared to be responding to treatment.

During the fourth and fifth days, his fever ranged between 102° F and 103° F. Headache, muscular soreness and prostration persisted. A slight jaundice appeared. His bowel movements were occasionally tarry. There was some gaseous distention of his abdomen and tenderness was elicited in the area of the gall bladder. His liver was apparently enlarged, as the rounded lower border could be palpated below the costal margin. His spleen was not palpable.

With the onset of the jaundice a macular eruption of the skin was noted on the chest. The onset of jaundice, macular skin eruption, and hemorrhagic gastro-intestinal manifestations appearing during the administration of sulphanilamide raised the question of the toxicity of the drug to this patient. Since the ulcer and lymphadenopathy were subsiding, and the blood culture and laboratory reports were negative for streptococci, typhoid, paratyphoid, undulant fever, and tularemia, the sulphanilamide was discontinued.

During the next two days his temperature was somewhat lower, ranging between 100° F. and 101° F., but he remained profoundly toxic. He seemed rational when aroused. Meanwhile the jaundice and the hemorrhagic manifestations increased in intensity, abdominal distention was marked and an intermittent hiccough developed. This was his general condition, on the seventh day of his illness, when he was admitted to the Grant Hospital.

Physical examination at this time revealed a deeply jaundiced, semi-comatose, periodically irrational white male, lying in bed and hiccoughing about every 5 seconds. The temperature was 101° F., pulse rate was 100 per minute and his respiratory rate was 24 per minute. The lower lip was covered with hemorrhagic herpetic lesions.

The above mentioned ulcer of the left hand was practically healed and no lymph nodes were palpable in the left axilla. The abdomen was markedly distended and tympanitic. No areas of particular tenderness were elicited on palpation.

The urinary output was markedly diminished. Laboratory examination revealed an alkaline, orange colored urine with a specific gravity of 1.012 and 100 mgs. per cent of albumin. Bile and blood were present in the urine and a few coarsely granular casts. The blood non-protein-nitrogen was 250 mgm/100 cc. The feces and gastric contents contained blood as revealed by chemical examination. Blood counts: erythrocytes 3,270,000 to 4,360,000 per cmm; hemoglobin 77 per cent to 88 per cent (11 to 12.5 grams), leucocytes 15,000 to 21,000 per cmm; with neutrophils 87 per cent to 97 per cent, and a moderate shift to the left. Toxic granules were present in a high percentage of the granulocytes. The agglutination tests noted above were repeated on the ninth day of the disease and were negative. The blood Wassermann and Kahn reactions were negative.

On the afternoon of the tenth day of his illness he expired suddenly although manifestly not unexpectedly.

Dr. Timothy Lehmann:

A review of the clinical aspects of this case in the endeavor to make a diagnosis, reveals an infection with marked toxemia, and a supervening jaundice as the outstanding characteristics. Assuming for purposes of discussion that the infection was related to, or the cause of the jaundice enables us to consider the differential diagnosis of infectious jaundice. The most common type of infectious jaundice or epidemic

This is the forty-fourth of a series of cases to be published under the heading, "Case Records Presenting Clinical Problems." This case, presented at a recent staff meeting at Grant Hospital, was selected by Dr. Harry L. Reinhart.

jaundice is usually designated as "Infectious Jaundice". This is a benign and highly contagious disease, the etiology of which is unknown. It usually appears in epidemic form in the fall and winter and affects most frequently adolescent or preadolescent boys and girls. It is rarely fatal and does not present the hemorrhagic and renal manifestations observed in this case. Furthermore there was no evidence of contagiousness or any epidemic of jaundice associated with this case. Acute catarrhal jaundice is often confused with infectious jaundice and is even considered by many to belong to the same group. Acute catarrhal jaundice is usually afebrile, rarely fatal, non-contagious and clinically appears to be more of a toxic than infectious nature. It is usually encountered in adults and rarely presents the hemorrhagic and renal manifestations so prominent in the case under consideration. A third type of jaundice apparently rare in this country, but which must be considered is Weil's disease, also called Spirochaetosis icterohaemorrhagica, or spirochetal jaundice. As jaundice is often absent, particularly in cases which recover ("No jaundice, no mortality"), Weil's disease is considered the preferable terminology. The disease which was described by Weil was characterized by "sudden onset, prostration, fever, muscular pain, jaundice, hemorrhagic tendencies and renal failure". In 1916 Inada reported that a spirochete was the causative agent of Weil's disease and this spirochete was later classified by Noguchi as Leptospira icterohemorrhagiae.

It is apparent that the case under consideration clinically conforms to the classical picture of Weil's disease to a greater extent than infectious jaundice or acute catarrhal jaundice. A review of these features include a sudden onset of the illness with high fever and severe prostration, a subsequent (4 days) and gradual development of a progressively increasing jaundice, with enlargement of the liver and a non-palpable spleen, hemorrhagic manifestations evidenced by coffee ground vomitus, tarry stools, hemorrhagic herpes labialis and terminal hemoptysis, intense headache, severe muscle pains, persistent hiccough and a semi-comatose condition, oliguria, anuria, high blood non-protein-nitrogen and death.

In the presence of such a classical clinical picture a presumptive diagnosis is justified. Often however, the clinical picture of Weil's disease is not classical but decidedly atypical, and particularly in cases without jaundice the diagnosis may be overlooked or confused with typhoid fever, streptococcic septicemia, meningitis, trichinosis, nephritis or hematological dyscrasias associated with hemorrhagic tendencies. Under such conditions the diagnosis should be made by the demonstration of the etiological agent, the leptospira icterohemorrhagiae in the blood, or urine by dark field examination or guinea pig inoculation, or later in the course of the disease by agglutination or complement-fixation reactions. In this case the spirochetes were demonstrated in the blood by dark field examination, and the agglutination test was positive on the ninth day of the disease.

Early diagnosis before or soon after the onset of jaundice is most important for effective treatment. At this time the diagnosis may only be made with sufficient rapidity by demonstration of the spirochetes in the blood by culture and dark field examination. Effective treatment consists in the intravenous administration of large doses of a potent prepared serum, or convalescent serum in the early stages of the disease. By this method of treatment a marked reduction in mortality (reported as high as 50 per cent of jaundiced cases), and a distinct amelioration of symptoms has been noted.

Dr. H. L. Reinhart:

Anatomic diagnosis: (1) Generalized icterus, (2) petechial hemorrhages of gastro-intestinal tract and lungs, (3) enlargement of liver (2170 grams) and kidneys (650 grams), (4) punctate hemorrhages of calf muscles. As illustrated by this case, Weil's disease is usually characterized by a lack of definite anatomical lesions. The diagnosis may be made by demonstration of leptospira icterohemorrhagiae in smears scraped from liver, kidneys, or spleen and stained by Fontana's method, guinea pig inoculation or culture of urinary sediment, blood, or scraped kidney tissue or Levaditi's stain of tissues, particularly the kidneys. The spirochetes were demonstrated in scrapings from the spleen, stained by the Fontana method, and by Levaditi stain of tissue sections from the kidneys.

For purposes of clinical diagnosis selection of material should be governed by the three stages of the disease. In the first or febrile stage (four to seven days) the spirochetes are in the blood and may be demonstrated by dark field examination, guinea pig inoculation of the blood, or culture of the blood. In the second or toxic stage (seven to ten days), inoculation of guinea pigs with urinary sediment, agglutination of known organisms with patient's sera and complement fixation test are the methods of choice. The agglutination and complement fixation reactions remain positive throughout the third or convalescent stage, and usually for years after recovery. Spirochetes are abundant in the urine during this stage and the danger of infection from the urine is great.

Although the disease is considered rare in this country 10 per cent of wild rats, the reservoir of infection, have been found to be infested with spirochetes in various sections of this country and the disease should be constantly considered particularly in the differential diagnosis of febrile jaundice.

Tuberculosis Abstracts

A Review for Physicians Issued by the National Tuberculosis Association and Distributed by the Component Society, the Ohio Public Health Association

PHRENIC NERVE INTERRUPTION

PHRENIC nerve interruption in the treatment of tuberculosis has lately lost much of its former popularity. By some it is condemned as being practically useless, if not actually harmful. A more discriminating judgment of this operation is urged by J. W. Cutler* who has analyzed 122 consecutive phrenic nerve interruptions in his private patients.

In retrospect, the cases are classified as "apparently suitable" and "unsuitable". Unsuitable cases include: (1) apical cavities three or more cm. in diameter, for the operation is useless in the attempt to close apical cavities in which the apex has become more or less excavated and adherent to the thoracic wall; (2) dense fibrotic lesions with embedded cavities; (3) pneumonic consolidations; (4) acute infiltrations. In this series there were 30 patients with lesions deemed in retrospect as unsuitable for the operation. The contraindications, in the sense that no benefit will follow, cannot however be considered absolute for occasionally a distinctly good result will follow.

Seventy-one patients fell into the "apparently suitable" category and were evaluated as follows:

(a) **Unimproved**, 52 per cent. No material X-ray evidence of improvement in the tuberculous lesions noted within three to six months after the operation, or an actual increase in the disease. Lack of improvement was observed in all kinds of cases with "apparently suitable" lesions, including both cases of early limited infiltrations without X-ray evidence of cavity and cases of advanced disease.

(b) **Improved**, 34 per cent. Cavity was either closed or reduced in size or there was X-ray evidence of significant clearing with lessening of toxemia and improvement in well-being. However, in only 14 of the 24 cases in this group, did the improvement result in the stabilization of the lesion so that no further therapy was required. In the remaining 10, improvement, marked at first, was in time followed by serious relapse.

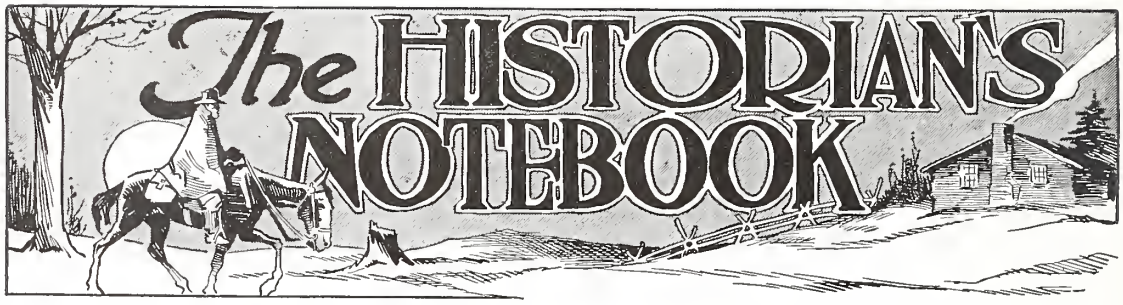
(c) **Cleared**, 14 per cent. Clearing of the disease in the lung except for some fibrous strands and a few small, sharply defined, moderately dense, spots. There were cavities of varying sizes in eight and infiltration without X-ray evidence of cavity in two. The result followed so shortly after operation and in such manner as to leave little doubt that the paralysis of the diaphragm was the responsible factor. The lungs have remained clear over an average period of more than six years after operation.

No concrete conclusions could be reached as to the type of case among the "apparently suitable" patients in which the operation can be undertaken with reasonable assurance of success. Good results were obtained in advanced disease and in unexpected situations. On the other hand, failures were encountered in minimal cases. In general, good results were observed more frequently when the major lesion was situated below the clavicle, and when the cavity was isolated, thin-walled and surrounded by nearly normal lung tissue. In those cases in which bilateral pneumothorax ultimately became necessary, selective collapse could be established in only 12 out of 28 patients. Time wasted on phrenic nerve interruption was largely responsible for the formation of extensive adhesions.

Complications of phrenic nerve interruption must be taken into consideration. In the present series, significant complications attributable to the operation, were encountered in six with death in two. Cardiac failure, which accounted for the two deaths, was the outstanding complication. Other important complications were interference with the cough mechanism (two patients), gastric disturbance (belching and a sense of fullness in the stomach) annoying but not serious (three patients). The fact remains, however, that the treatment of tuberculosis does not always permit a safe and sure choice of therapy. Phrenic nerve interruption may, in individual cases, prove to be accompanied by the least risk.

Both temporary and permanent phrenic nerve interruption have their place. A temporary phrenic nerve interruption is indicated (1) when the problem is of an emergency nature, as in hemorrhage or active disease requiring immediate collapse therapy when other collapse measures cannot be instituted at the moment, and (2) when other collapse measures such as pneumothorax or thoracoplasty, are in prospect. A permanent phrenic nerve operation is indidicated when the operation is carried out as the sole therapeutic measure in the attempt to cure the patient after other collapse procedures have been considered unsuitable, or are plainly contraindicated.

The danger today is not that too many phrenic nerve operations will be performed or that they will be undertaken in an indiscriminate manner, but that the operation will be discarded. This would be unfortunate, for phrenic nerve interruption appears to have value in 15 to 25 per cent of patients. At times it may be the simplest means for saving a patient's life. The operation, however, should be restricted to properly selected cases.—*J. W. Cutler, M.D., Amer. Review of Tuber., July, 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Odds and Ends

DONALD D. SHIRA, A.B., M.D.

AS the title implies, this is a hodgepodge of interesting, if not particularly instructive, historical items pertaining to Ohio. It is compiled from notations made now and then while delving into various sources on medical history.

The Author

● Dr. Shira, Columbus, is a graduate of Ohio State University College of Medicine, 1914; former health commissioner of Akron and Summit County; assistant secretary Ohio Public Health Association.

MEDICAL EDUCATION

For over 125 years the medical profession of Ohio has been trying to elevate educational standards. Apparently the ultimate goal has not yet been reached. A comparison of present-day requirements with those "devoutly to be wished", in 1835 may be made by reading the report by the Committee on Medical Education in Ohio to the Medical Convention of Ohio which convened in Columbus, January 5, 1835. Dr. Landon C. Rives, then Professor of Obstetrics and Diseases of Women and Children, Medical Department, Cincinnati College, submitted the report.

"The committee appointed to inquire into and report the means of improving the state of Medical Education in Ohio, have given to the subject all the consideration which their time and other duties connected with the business and proceedings of this Convention would allow. Ample observation has convinced your committee of the existence of radical defects in our system of education; defects which in many instances have exerted a disastrous influence upon individual fortune, and if not corrected, must ultimately annihilate whatever of respectability remains to the profession.

"To arrest this proclivity of medical character, is the duty of every physician. All cannot exert an equal influence in this hallowed work, but there is not one of us who may not contribute, by his instructions or his example, to its success.

"It appears to your committee, that of all the means which could be devised for the elevation of the medical profession in the State of Ohio, the adoption and recommendation by your honorable body of a judicious preparatory and professional course of studies would be most effective. They are aware that this standard cannot now be raised so high as it is in Europe, or as they could desire to see it; but they are nevertheless persuaded, that some standard, accommodated to the condition of our state, which shall exclude the imbecile and illiterate, who are annually assigned to the ranks of the profession, by vanity or indolence, or some worse motive, may be adopted.

"Under a full persuasion of the correctness of these views, your committee will proceed at once to unfold their opinions in relation to the qualifications and preparatory education of students of medicine, the duties of private instructors, and the objects and organization of medical schools.

"1st. *Of the qualifications and preparatory education of Students of Medicine.*—There is perhaps no human pursuit which requires a more varied combination of physical, moral and intellectual qualities for its successful study and prosecution, than the profession of medicine; and yet there is none in which considerations of fitness are more completely disregarded.

"Your committee would recommend, among the natural endowments which should characterize the student of medicine, a sound constitution and a vigorous mind, *sana mens in sano corpore*, should be an indispensable pre-requisite. Without health, it is impossible to prosecute successfully,

the study of either of the learned professions. Close application and sedentary habits induce a train of unpleasant symptoms in the most robust individuals, but in the delicate and predisposed, they never fail, if long protracted, to produce fatal maladies. But if physical development be necessary as a means of securing the operations of mind, and in this manner constitute a prerequisite to the study of medicine the character of the *intellect itself* must form a much more important consideration. Observation and judgement are the most valuable faculties which a medical student can possess. By their aid he is enabled to comprehend the principles of the science, and to apply them to the treatment of diseases. If to these faculties he add inquisitiveness and ambition to impel him forward in the acquisition of knowledge, industry to sustain him, and a gentlemanly demeanor, the offspring of a benevolent and feeling heart, his intellectual and moral qualifications may be considered as complete. But education has yet to impress her seal upon the character of the individual, before he can be regarded as suitably prepared for the study of medicine.

"In relation to many of the branches of learning taught by our Universities, their importance is variously estimated by different individuals. No diversity of opinion, however, it is presumed, can exist as to the indispensable necessity of a correct elementary education, including grammar, the art of composition, physical geography and the general outlines of history. To these should be added, if the student aspire (which he should always do) to the elevated places in the profession, a respectable attainment in classical learning, in mathematics, and the natural sciences. Chemistry is so generally recognized as a valuable acquisition to the physician, that it is already adopted as a branch of study in every medical school. Natural philosophy, botany, zoology, and mineralogy are less generally admitted among the preparatory studies, but their relations to medicine are sufficiently obvious to make them objects of interest to the inquisitive and enlightened student. Without some knowledge of mechanical laws, we should be unable to understand many of the functions of the human system, such as seeing, hearing, respiration, and circulation. Botany and zoology furnish important aids in our physiological researches, but the former, as does mineralogy, connects itself immediately with the materia medica.

"Your committee have indicated the branches of learning which they would recommend as a preparation for the study of medicine, without any attempt, by elaborate exposition, to show the relation of its several parts to our science. Without pretending to attach equal value to every part of the scheme, your committee would take leave of the subject with the expression of an ardent hope, that the members of this Convention will all unite their efforts in favor of a more elevated scale of preparatory and auxiliary studies, and thus throw their influence in the cause of regenerating the profession.

"The *second* branch of the enquiry which we propose in the investigation of this subject, related to *private pupilage*. Of the numerous defects of this system, and their deleterious operation upon the profession, it would be vain to attempt an account. We shall be content to draw your attention to a few of the most obvious duties of private preceptors.

"Whenever an individual makes application to a physician for admission into his office as a pupil, it will be his duty to examine the candidate rigidly as to his preparation. If he discovers any deficiency in the essential branches of a proper preliminary education, it is the duty of the physician to admonish him of his incapacity, and to advise him to apply himself to some other avocation. But if his examination be approved, a more pleasant duty awaits the physician. The candidate is to be apprized of the *magnitude* of the undertaking which he has assumed, and of the importance of dilligence and method in his studies. For the purpose of securing these results, it will be the duty of the preceptor to institute regular and systematic examinations. By these means the mind of the pupil will be deeply impressed with the subjects of his reading, and he will be stimulated to industry and exertion. But it is not the duty of the preceptor to aid his pupil by his prelections and examinations *only*. He must provide his office with plates, anatomical preparations, and all other facilities which can assist the progress of his pupils. By the assiduous and faithful discharge of these duties, he will have the satisfaction of seeing his pupils daily improving in knowledge, and ultimately prepared to take an honorable position in the ranks of the profession.

"There are two defects in private pupilage, connecting themselves with the student, which, in the opinion of the committee, deserve the serious consideration of medical men.

"The first is the period of pupilage. This is much too short. It is not at all unusual for the student to commence the practice of medicine at the end of eighteen months or two years. The influence of the profession should be brought to bear upon this evil, until it is rectified, and medical character is redeemed from the reproach of incompetence, thus brought upon it.

"The second defect to which allusion was made, is the encouragement held out to men of slender means, to engage in the study of medicine, when it is almost certain that their pecuniary situation, must compel them either to abandon the pursuit, or to engage in it prematurely and without preparation—a course of this kind is cruel to the individual, and a crying sin against the interests of humanity.

"3d. *Medical Colleges*—These are important institutions. They are designed to perfect and complete medical education, which generally commences under private preceptors. It is evident from this consideration, as well as from the influence they radiate through the country in which they are located that much care and attention should be bestowed on their organization. The following propositions in relation to this subject, will be generally assented to:

"I. The professorships should be filled with men most eminent for abilities and attainments, who should combine with these qualifications an aptitude for teaching.

"II. *The number of professors.*—On this subject some diversity of opinion prevails. Six, seven, and eight have been advised. Circumstances may occur to render the one or the other proper. But your committee entertain the opinion, that where no peculiar cause operates to affect the decision, the number should correspond to the natural division of medicine, into 1st, the Institutes of Medicine. 2d, the Theory and Practice of Medicine. 3d, Materia Medica. 4th, Anatomy. 5th, Institutes of Surgery and Operative Surgery. 6th, Obstetrics and the Diseases of Women and Children. 7th, Chemistry. Medical Jurisprudence to be distributed according to its affinities.

"III. Experiments and demonstrations should constitute a principal object in medical schools. Much that is taught in lectures might be successfully studied in the closet; but chemistry, which is an experimental science, anatomy, operative surgery, and obstetrics, which are demonstrative, can no where be so advantageously cultivated, as in public institutions, where the means of illustration are employed by the professor, and may be repeated by the student.

"For the sake of these facilities, as well as for many other reasons, every individual who aspires to become a *useful* physician, should feel himself under the highest obligations to attend lectures, if not to graduate, in some respectable medical college. Unless he do this, his education must be regarded as radically defective, and his practice cannot fail to conform in its general character, to his education.

"In the opinion of your committee, much advantage would result to the cause of medical education, if by a combined and associated action between the medical institutions of our country, their sessions could be prolonged, and the standard of professional attainment elevated. Your committee are aware of the difficulty, of the impracticability, indeed, of an independent movement in these public matters; but they feel that the interests and dignity of the medical profession are so deeply concerned in these reformations, that they have assumed the responsibility of throwing out these hints, under the hope that at some future time they may be acted upon by those who only are competent to afford relief in the premises.

L. C. RIVES, *Chairman*".[1]

Jan. 7, 1835.

DISSECTION

As everyone knows the problem of securing human cadavers for purpose of dissection was a puzzler to early physicians. The only solution was to run the risk of shotgun fire or arrest by "resurrecting" bodies. So, upon a report by a committee appointed by the 1835 Medical Convention of Ohio the following resolutions were adopted:

"1. *Resolved*, That this Convention deem it expedient and proper, to memorialize the Legislature to so amend the criminal law, as to modify or repeal the 19th section of the act entitled 'An act for the punishment of certain offences therein named', passed March 8, 1831; and further praying the enactment of a law authorizing the dissection of all persons convicted of capital offences, who die either in common jails or the Ohio penitentiary, or that are hanged in pursuance of law.

"2d. *Resolved*, That a committee of three members be appointed, to draft a memorial in the name of the Society, and present the same to the Legislature at its present session, in accordance with the foregoing views.

Respectfully submitted,

M. Z. KREIDER, *Chairman*".[2]

In passing one might be justified in dwelling briefly on the life and character of Dr. Kreider, who signed the preceding report. He was born in 1803 in Huntington, Penn., and located in Lancaster in 1830. "He was a fine surgeon and a man of rare intellect. He soon become one of the leading citizens, and a man of many accomplishments. He represented Fairfield county in the Ohio Legislature, was for several years clerk of the court of Common Pleas; was very prominent in the great temperance movement. He was a splendid conversationalist and a fine speaker. He was an enthusiastic Free Mason, and filled all the prominent or chief offices of that order. He was the first Grand Eminent Commander of the Knights Templars of Ohio and Grand Master of the order at the time of his death in 1852".[3] He dipped into politics, was a local preacher, a temperance lecturer, manager and owner of a line of stage coaches and the owner of a large drug store. "Once seen his face and form could not be forgotten". He was known every where in central and southern Ohio.[4] In 1852 he was chairman of a committee having for its purpose the construction of a railroad from Logan, to Newark via Lancaster.[5]

Bibliography will appear with Part II, in December Issue.

The Doctor as Statesman

By EDWARD PODOLSKY, M.D.

IN the field of statecraft the doctor of medicine has made an enviable name for himself. There have been medical statesmen in almost every country from the earliest times. The doctor has served as mayor, governor, ambassador, president and in various other capacities with distinction.

The man who served the longest term as elector in old Germany, 37 years, was a physician, Johannes Lange, whose official title was Archiater Palatini Electorilis. He was also the first to write the best and most complete description of chlorosis.

Johannes Lange was born in Lowenberg in Silesia in 1485. He received a thorough classical education in his native land, being graduated with the master's degree in 1514. For a while he taught at Leipsic, but always in the back of his mind was the determination to study medicine. So to Italy he went, studying first at Bologna and later at Pisa where he received his doctor's degree in 1522, at the age of 37.

Dr. Lange returned to his native Germany where he entered the service of the electors of the Palatinate and later was appointed Archiater. He served the Elector Friedrich II for many years, and on the death of Friedrich, his nephew Otto Heinrich succeeded him and the new ruler appointed Lange a minister and privy councilor.

Johannes Langc lived to the age of 80, serving his two professions well, medicine and statecraft. His contribution to medical literature was voluminous. Most famous in his description of chlorosis which was more common in his day than it is now. He described the patient as "sadly paled, the heart trembles with every movement of her body, and the arteries of her temples pulsate, and she is seized with dyspnea in dancing or climbing the stairs, her stomach loathes food and particularly meat, and the legs, particularly at the ankles, become edematous at night."

Lange wrote on many topics, surgery, urology, psychiatry, medical education and sanitation, and he had something to say on each. He was thoroughly steeped in the learning of not only the writings of Galen, Hippocrates, Aetius and the other ancient masters but also in those of the leading physicians of his own day, Di Vigo, Benivienti and Fracastoro. Johannes Lange was not a great physician, but he was a very proficient one. He served not only his patients but his country with skill and devotion.

One of the most unusual doctor-statesmen was Johann Friederich Struensee, who, born in the year 1737 at Halle in Magdeburg, studied medicine, became a doctor, then a statesmen, and at one time was virtual dictator of Denmark and Norway, and who as most dictators, died a violent death.

The Author

Dr. Podolsky, Brooklyn, New York, is a graduate of Boston University School of Medicine, 1929; member New York Endocrinological Society; author of Medicine Marches On, The Doctor Prescribes Music, etc.

Struensee entered the University at the age of 14, and when he was 19 he emerged as a doctor of medicine. His two uncles were already physicians long established in practice and upon his graduation he joined one of them as assistant.

Dr. Struensee engaged in private practice, but his heart was not in it. He was restless and dissatisfied. He spent more than he earned, and he was seriously considering emigrating to the East Indies. But in 1766 Christian VII became King of Denmark and Norway, and the star of Struensee began to rise.

Within two years he was Physician-in-Ordinary to the King, and shortly thereafter he was advanced to the rank of Privy Councilor. He was now at Court in the true sense of the word.

Struensee was a man of domineering character. He had saved the Queen from a serious illness, and the King himself was not in sound mental health. In time Struensee became the Queen's lover and the incompetent King was like putty in his hands. In September of 1770 Dr. Struensee was the veritable ruler of Denmark.

Had Struensee been satisfied with things as they were all might have been well. But Struensee was seized with an overwhelming desire to reform everything in sight. He begun by reducing the number of courtesy titles. He created a commission to investigate the expedition against the Dey of Algiers who had been molesting Danish commerce. One notable thing Struensee did was to abolish press censorship and encourage the freedom of the press.

All these orders were issued in the name of the King, who, of course, knew nothing about them. Had Struensee stopped there he might have continued as the veritable ruler of Denmark for many years. But he was drunk with power. He removed Bernstoff, the prime minister. This was followed by mass dismissals of other officials.

Then Struensee began to look into the financial

affairs of the nation, everything was put under central control; a budget was adopted. Pensions were reduced, and this at once made a great many new enemies for the doctor-statesman. The courts and the navy were reorganized; court life was simplified.

The medical training of Struensee had made a humanitarian of him in spite of his vainness. He abolished torture as a legal procedure. He reorganized the hospitals, he helped compile a new pharmacopeia. He improved medical education, established hospitals for the treatment of syphilis and other infectious diseases.

In the 600 days that he was in power he had issued as many decrees. No wonder so much opposition was aroused; he had everyone against him. That he was the Queen's lover was now common gossip; some even said that he was the father of her second child. The Queen-Mother hated him for this. The clergy hated him because he was a professed agnostic. The navy hated him because of his stringent regulations.

On the night of January 16, 1772, the Queen-Mother, Juliana, had gathered a sufficiently strong force which enabled her to arrest the overambitious doctor-dictator. The young Queen was confined in a fortress and the enemies of Struensee were now in control. Dr. Struensee, now Count Struensee was tried, found guilty, and his death sentence signed on April 25, 1772. This read:

"Count Johann Friedrich Struensee, as just punishment for his misdemeanors and as an example to the like minded, forfeit honor, life and property; be deprived of rank and honors; that his escutcheon be broken, his right hand first hewn from his body and then his head severed from the trunk, the body to be quartered, broken on the wheel and the head and hand exposed to public view on a pike staff."

In the United States physicians were among the pioneer statesmen. The first native-born physician to receive the degree of doctor of medicine was William Bull, who was born in 1710 at Ashley Hall, near Charles Town, South Carolina. He was graduated at Leyden in 1734.

Dr. Bull spent as much of his time as a legislator as a physician. He was first a member of the Common House of Assembly under the Lords Proprietors, and later of the King's Council. Still later, from 1737 to 1743 he was the Lieutenant-Governor.

So well did Dr. Bull serve as Lieutenant-Governor that no less than five times did he serve as Governor and Commander-in-Chief of the province. Those were years of increasing political tension, but Governor Bull did much to restore harmony. His predecessor, Governor Boone was constantly at odds with his associates. But as soon as Dr. Bull became Governor, all difficulties were smoothed out. Says Johnson in his TRADITIONS OF THE AMERICAN REVOLUTION: "Governor Bull then addressed the Assembly and harmony was immediately re-established between the Legislature and the Executive; the liabilities of the Province paid, and peace was established in South Carolina. But not so in England as to South Carolina's affairs."

Dr. William Bull served 35 years in various capacities as a legislator and executive, and he served well during those troublous times. But political affairs were not his only interests. He did much for education in his native state and elsewhere. He helped to found the College of Philadelphia. He also contributed to the support of libraries and built up the educational system in South Carolina. This medical governor was one of the best in the early history of the United States.

The doctor as statesman has served his state from early times. He has played a very important role in history in his capacity as legislator and executive. Medical men still play important parts in the governing bodies throughout the world. The Mexican Ambassador to the United States is a physician. Many physicians have served as Presidents of South American republics. In the United States many mayors, several governors and senators have been and are doctors.

Association for the Advancement of Science to Meet in Columbus

The Winter meeting of the American Association for the Advancement of Science will be held in Columbus, December 27, 1939 to January 2, 1940. Section N—Medicine and the Medical Sciences—will present a series of comprehensive symposia in the fields of hematology and cardiology. On the afternoon of December 27 the opening session will deal with the more recent and significant advances in hematology with invited speakers outstanding in their respective fields of investigation. On the 28th, 29th and 30th, each morning and afternoon will be devoted to the presentation of some phase of modern cardiology by leading authorities from throughout the country.

Every physician is cordially invited to attend these sessions whether he be a fellow of the Association or not.

Dr. Carl J. Wiggers, Western Reserve Medical School, Cleveland, Ohio, is vice-president for Section N this year and in charge of the cardiologic symposia, while Dr. C. A. Doan of Ohio State University, is the local chairman on arrangements for the medical meetings, and has planned the hematologic program.

The exact location of the sessions, and the detailed program will appear in the December issue of *The Journal*.

Proceedings of The Council

Policy Regarding Hospital Service Association Contracts Adopted At Meeting on October 8: Other Business of Importance Transacted

A REGULAR meeting of The Council of the Ohio State Medical Association was held in the State Headquarters Office, Sunday, October 8, 1939, with the following in attendance: President Smith, President-Elect Skipp, Past-President Hein, Treasurer Beer; Councilors Schriver, Klotz, McCormick, McNamee, Rutledge, Swan, Seiler, Sherburne, and Burley; Dr. Forman, Editor of *The Journal;* Dr. Lowe, chairman of the Committee on Public Relations and Economics; Dr. Norris, Youngstown; Dr. Kiely, Cincinnati, and Dr. Steinke, Akron, delegates to the American Medical Association; Executive Secretary Nelson, Assistant Executive Secretary Saville, and Director of Public Education Aszling.

On **motion** by Dr. Klotz, seconded by Dr. Sherburne and **carried**, the minutes of the last meeting of The Council held on July 9, 1939, were **approved** as published in the August, 1939, issue of *The Journal*, pages 870-873.

Membership Data—It was reported that the membership of the Association as of October 7, 1939, totaled 6,269 compared to 6,038 a year ago and to 6,128 as of December 31, 1938.

Reports by Councilors—Members of The Council reported on visits to and correspondence with county medical societies in their respective districts.

REPORT OF COMMITTEE ON PUBLIC RELATIONS AND ECONOMICS

Dr. Lowe submitted a report on transactions of the Committee on Public Relations and Economics at a meeting held on Saturday evening, October 7.

Proposal Rejected—A recommendation of the committee against participation by the Association in a proposal to publish a book dealing with medical service, socialization of medicine, etc., was **approved** by The Council on **motion** by Dr. Sherburne, seconded by Dr. McCormick and **carried.**

Hospital Contracts—The following statement of policy regarding coverage included in contracts being sold by hospital service associations, formulated by the committee, was **approved** by The Council on **motion** by Dr. Klotz, seconded by Dr. McNamee and **carried**, and the Executive Secretary was instructed to transmit a copy of the statement to each county medical society:

Statement of Policy

"It is essential that the medical profession take an active interest in all proposals or programs affecting the care of the sick. Leadership must be assumed by state and local medical societies.

"Realizing that there is increasing public interest in programs to provide hospitalization on a voluntary insurance basis and anticipating the expansion of group hospitalization programs in Ohio under the provisions of enabling legislation enacted at the recent session of the Ohio General Assembly, The Council of the Ohio State Medical Association believes that all county medical societies should give the question of group hospitalization immediate and earnest consideration.

"Inasmuch as hospital service programs are administered through local units, the responsibility for considering medical questions which may be involved rests with the individual county medical society. The Council suggests that county medical societies in counties where hospital service programs are now in operation and county medical societies where such programs are under consideration carefully evaluate the contracts being sold, or which are being formulated by hospital service associations. Special attention should be given to the coverage provisions of such contracts.

"The Council recommends that county medical societies use the following principle as a guide in evaluating contracts and in conferences with hospital service association representatives:

"The subscriber's contract should exclude all medical services. Contract facilities should be limited exclusively to hospital facilities such as bed, board, operating room, medicines, surgical dressings, general nursing care, and services of intern and resident staff in assisting the subscriber's attending physician.

"If the above principle is complied with by all local hospital service associations in formulating a schedule of benefits, the result would be a certain uniformity of policy and procedure throughout the state, efficiency in administration, and absence of misunderstanding.

"The medical profession of Ohio believes that group hospitalization programs, in the hands of reputable and efficient administrators, are of definite public benefit, providing such programs are limited to hospital services and do not include medical services, which inclusion would have an undesirable effect on the practice of medical specialties in hospitals and on the quality of the service rendered. Group hospitalization plans operated in accordance with the above principle should have the active cooperation of the medical societies in the localities in which they operate."

Fees for Insurance Papers—On **motion** by Dr. Sherburne, seconded by Dr. McCormick and **carried**. The Council **approved** the following statement submitted by the committee relative to the charging of fees by physicians for executing certain classes of insurance papers:

Statement of Policy

"Inasmuch as there has been some confusion in the minds of members of the medical profession and representatives of insurance companies

with respect to the charging and payment of fees for services rendered by physicians in providing information to insurance companies, The Council of the Ohio State Medical Association offers the following statement of policy to guide members on this matter:

"Insurance blanks and papers which a physician may be called upon to execute at the request of insurance companies or the insured should be classified as follows: First, those for the benefit of the insurance company; and second, those for the benefit of his patient (or claimant).

"The Council believes that a physician is justified in charging an insurance company for the filling out of papers furnished by the company in cases where such information is for the benefit of the insurance company.

"With respect to the second class of insurance papers where the information is for the benefit of the patient (or the claimant), The Council believes that the question of whether or not a fee should be charged the patient (or claimant) for such services is one involving physician-patient relationship and that the final decision rests with the physician."

Miscellaneous Questions—Dr. Lowe reviewed miscellaneous matters discussed and acted upon by the committee. On **motion** by Dr. McCormick, seconded by Dr. Sherburne and **carried**, The Council **approved** the report of the committee as a whole.

MEDICAL SERVICE PLANS

Dr. McCormick presented a report from Dr. Fred Douglass, Toledo, regarding the initiation of a state-wide medical service plan for low income groups on an insurance basis by the Michigan State Medical Society, based on first-hand information obtained by Dr. Douglass while representing the Ohio State Medical Association at the recent Annual Meeting of the Michigan State Medical Society. Dr. Douglass recommended that the Ohio State Medical Association continue with its studies of the possibilities of the establishment of a similar plan or plans in Ohio, and that the State Association take the lead in disseminating information to the membership on this important question. A communication from the Wood County Medical Society on this question was presented to The Council.

After a lengthy and thorough discussion of the entire question, on **motion** by Dr. McCormick, seconded by Dr. Sherburne and **carried**, the President was instructed to appoint a special committee to continue with the study of the availability of medical services for the low income groups in Ohio and of the feasibility of establishing voluntary medical service plans on an insurance basis, such committee to work under the jurisdiction and control of the Committee on Public Relations and Economics.

On **motion** by Dr. Sherburne, seconded by Dr. Beer and **carried**, the report submitted by Dr. McCormick on behalf of Dr. Douglass was referred to the Committee on Public Relations and Economics so that it would be available for consideration and study by the special committee.

ANNUAL MEETING ARRANGEMENTS

Dr. Norris, chairman of the Committee on Scientific Work, submitted a report on arrangements to date for the 1940 Annual Meeting to be held May 14, 15 and 16, Netherland Plaza Hotel, Cincinnati. On **motion** by Dr. McCormick, seconded by Dr. Rutledge and **carried**, the report was approved. (See pages 1226-1227 this issue of *The Journal* for transactions of the committee and joint conference with Section Officers held on September 10, 1939.)

AMENDMENTS APPROVED

The Judicial and Professional Relations Committee recommended changes made by the Summit County Medical Society in the constitution and by-laws of that society by official vote on October 3, 1939, be approved by The Council. On **motion** by Dr. McCormick, seconded by Dr. Seiler and **carried**, The Council **approved** the recommendations of the committee.

BIGELOW PROPOSALS CONDEMNED

On **motion** by Dr. Sherburne, seconded by Dr. McCormick and **carried**, The Council voted unanimously in opposition to the so-called "Bigelow Old-Age Pension Proposal", and a second proposal sponsored by Mr. Bigelow decreasing the number of signatures which would be required to initiate proposed constitutional amendments and laws, and instructed the Executive Secretary to disseminate information to all members regarding the dangers of the foregoing proposals.

MISCELLANEOUS

Woman's Auxiliary—Dr. Klotz, reporting in the absence of Dr. Hogue for the special Council committee preparing plans for the organization of a Woman's Auxiliary, stated that the committee at the present time is assembling information obtained from other state medical societies and the American Medical Association and hopes to be able to present a written report to The Council at its next meeting.

Bureau of Public Education—Mr. Aszling, Director of the Bureau of Public Education, reported on activities and plans of the Bureau. On **motion** by Dr. Sherburne, seconded by Dr. Rutledge and **carried**, The Council commended Mr. Aszling and the Bureau for their activities to date.

Postgraduate Lectures—Mr. Saville, Assistant Executive Secretary, reported on the Regional Postgraduate Lecture sessions being held in five regions through the state, all of which have been well attended and, judging from comments of members, are being well received.

1943 A.M.A. Meeting—A communication from the St. Louis Medical Society asking for support

for an invitation to the A.M.A. to hold its 1943 Annual Session in that city was referred to the Ohio delegates to the A.M.A. with instructions for them to use their best judgment when and if such invitation is considered by the House of Delegates of the A.M.A.

Letter From Anesthetists—A communication from Dr. K. C. McCarthy, Toledo, secretary of the Toledo Society of Anesthetists, requesting The Council to consider a request made by anesthetists that a section on anesthesia be established by the American Medical Association, was referred to the Committee on Public Relations and Economics for consideration and a subsequent report to The Council.

There being no further business, The Council adjourned to meet at the call of the President.

Attest: CHARLES S. NELSON,
Executive Secretary.

Program for Annual Clinic Day of Toledo Academy, Nov. 17

The Academy of Medicine of Toledo and Lucas County cordially invites all Ohio physicians to attend its annual Clinic Day, which will be held at Mercy Hospital, Toledo, Friday, November 17, beginning at 10 A.M.

The morning program follows:

Surgery and Gynecology—"Radical Mastectomy and Appendectomy", motion pictures, followed by discussion, Dr. Philip D. Werum, Dr. Homer H. Heath, Dr. W. Waldo Beck, Dr. R. F. Heatley, Dr. J. J. Sweeney, Dr. H. L. Hauman, Dr. H. M. Scott, Dr. L. P. Gieringer, Dr. P. R. Ensign.

Laryngology—"Lipiodol Injection of the Bronchi for Various Respiratory Diseases", Dr. J. E. Minns.

Genito-Urinary Diseases—Demonstrations of cases, showing of slides, moving pictures, Dr. L. P. Dolan, Dr. M. B. McGonigle, Dr. E. A. Ockuly, Dr. H. M. Shellenberger.

Cardiology and Medicine—"Coronary Heart Diseases", Dr. F. C. Clifford; "A Case of Refractory Anemia with Bone Marrow Studies", Dr. Foster Myers; "Gold in the Therapy of Arthritis", Dr. Nelson D. Morris; "Kodaslide Demonstrations of Common and Interesting Skin Lesions", Dr. A. P. R. James.

Orthopedics—Discussion of various methods of treatment of hip fractures, with X-ray check-up; discussion of various cases of bone pathology and X-ray findings; discussion of methods of treating bumper fractures, with the presentation of X-ray plates, Dr. F. L. Eyestone and Dr. Dale Wilson.

Pediatrics—"Infantile Paralysis"; "Osteomyelitis"; "Differential Diagnosis of Acute Appendicitis in Children"; Dr. B. S. Dunham; Dr. Lawrence I. Clark; Dr. Wm. Frank Maxwell.

Dermatology—Showing of cases, differential diagnosis.

Obstetrics—"Delayed Cervical Repair"; "Stillbirth"; "Fibroids Complicating Delivery"; Dr. D. S. Booth; Dr. Edward R. Garvin; Dr. Clarence A. Berger; Dr. Z. H. Ballmer; Dr. Lew H. Hauman.

Anaesthesia—"Methods of Anaesthesia"; "Classification of Anaesthetics"; "Choice of Anaesthesia"; "Spinal Anaesthesia"; Dr. K. C. McCarthy; Dr. F. W. Clement; Dr. A. J. G. Kuehn; Dr. Floyd E. Coultrap; Dr. M. P. Cooper.

Pathology—Pathological demonstrations; Dr. J. B. Rucker; Dr. J. N. Fidelholtz.

Roentgenology—Demonstration of roentgenograms of more common chest lesions, Dr. Dalton Kahn.

Proctology—Demonstrations of cases; Dr. J. F. Whitacre; Dr. L. G. Herold; Dr. F. S. Allen.

Beginning at 2 o'clock in the afternoon, Dr. F. D. Murphy, professor of medicine and director of the medical department, Marquette University School of Medicine, Milwaukee, will speak on "Some Phases of Jaundice and Its Significance".

An evening session will be held in the Academy Building, 15th and Monroe Sts., at which Dr. Murphy will speak on "Hypertension and Nephritis".

Dr. Horton Is Honored

Two hundred and seventy Ohio physicians and guests attended a dinner at the Athletic Club, Columbus, Thursday evening, October 19, honoring Dr. Elmer G. Horton, emeritus professor of pediatrics, Ohio State University College of Medicine, who retired from the faculty September 1, after serving 37 years. The principal speakers were: Dr. William McPherson, acting president, Ohio State University; Dr. E. J. Gordon, Dr. John W. Wilce and Dr. Harry E. LeFever. Horace S. Kerr, Columbus attorney, was toastmaster. Dr. W. D. Inglis was general chairman of the committee which sponsored the dinner.

Summit County Postgraduate Day

The Eighth Postgraduate Day of the Summit County Medical Society will be held at the Mayflower Hotel, Wednesday afternoon and evening, November 8, beginning at 2 o'clock. The speakers will be Dr. W. E. Post, professor of medicine, Rush Medical College, University of Chicago; Dr. C. B. Puestown, associate professor of surgery, University of Illinois College of Medicine, and Dr. G. H. Gardner, assistant professor of gynecology, Northwestern University Medical School. The registration fee is $5, which includes dinner.

European Medical Schemes Won't Work Here; Arguments of Those Wanting Them Adopted in U.S. Termed Fallacious

THE fallacy of quoting results of European compulsory health insurance systems as arguments in favor of state control of medicine in America was attacked by Dr. Parke G. Smith, Cincinnati, President of the Ohio State Medical Association. at a meeting of the Fifth Councilor District Friday evening, October 20, in the Medical Library Auditorium, Cleveland.

Speaking on behalf of the State Association, Dr. Smith told the district meeting audience that America's physicians must "challenge those who hanker for political dominion over medicine in America when they point to European health insurance systems and say: 'It works there; we must have it here' ".

The meeting followed a complimentary buffet supper. Dr. Russell L. Haden, president of the Cleveland Academy of Medicine, made a brief address of welcome, after which he introduced the State Association president.

The text of Dr. Smith's address follows:

WHAT TO DO?

"These are days in which the doctor finds himself thinking a great deal about the imminence of some kind of general political control of medicine. In his daily reading he comes across newspaper articles telling him that arguments on this issue are going on in scattered but numerous quarters. In conversation with patients and friends he discovers that others, too, are thinking and talking about the likelihood of some radical change to force the practice of medicine into the arms of government in America.

"In general, he has the feeling that he is vitally concerned in events that are taking place, trends that are being shaped, and that he definitely should be doing something about it. The question is, then: What should the individual physician do as his part in protecting America agaainst disastrous changes in the kind of medicine practiced here?

"The answer is that he must take up the task of giving the American people an accurate and undistorted picture of the issues at stake. Our government is fortunately still a democracy, and, in the final analysis, the people make the important decisions. Hence it is the doctor's obligation to make sure that the people receive information on the issue pertaining to the socialization of medicine in truthful and uncolored fashion. He must examine the attractive statements of the agitators for a regimented Federal health program and see if they will endure under objective critical analysis. If they will not, it is his duty to brand them as fallacious.

"To show you what I mean, permit me to discuss briefly one of the points so often put forward in the flood of literature on the topic from lay writers which reaches the public.

MUST BE CHALLENGED

"We must challenge those who hanker for political dominion over medicine in America when they point to European health insurance systems and say: 'It works there; we must have it here'.

"We must accuse them of allowing serious fallacy to creep into their alluring logic. We must tell them, when they say America needs a governmentally regimented scheme like England's, or Denmark's, or France's, that here their premise is false and their argument is lost.

"The cry is frequently heard, 'Look at England! The small-wage earner is provided for in a democratic way.' 'What of Denmark? State health insurance is satisfactory in that land of advanced social legislation.' 'What's wrong with the French idea? It meets the need without destroying the right of free choice or the physician-patient relations.' 'Why can't America have these things? Let's get Uncle Samuel into the health insurance business on a nation-wide scale!'

A RECENT BOOK CRITICIZED

"Indeed it is a frequently raised cry, and the argument is alluring. And now we read it once again, this time in expanded and very complete form, in Barbara Armstrong's book *The Health Insurance Doctor*, which is a report of her findings and studies on the English, Danish, and French systems. Although Mrs. Armstrong has not attempted to preach to her readers about what should be done here, she leads them guilelessly to the inevitable inference. In a small postlude to her three case histories she says:

" 'Indeed, the organization of medical service in each instance (England, France, and Denmark) stands upon the foundation principle that the traditional free doctor-patient relationship is a desirable one and that, as economic conditions frequently deny it to workers and their families, health insurance should restore it to them and to the doctors who would like to serve them. This fact needs emphasis, perhaps, because of the prevalent mistaken belief that health insurance, like many schemes of straight socialized medicine, aims at substituting for the private practice relationships a situation comparable to that of the teacher and student, i.e., a socialized medical service rendered by a closed technical staff which is selected by administrative authorities and

whose remuneration has no direct relation to the ability to attract and hold patients.'

INTERPRETATIONS QUESTIONED

"Although we may have valid reasons to doubt Mrs. Armstrong's assurance that the freedom of relations with patients has not been jeopardized in the three systems she has studied and although we may question her implication that compulsory health insurance should not be classified as 'straight socialized medicine', believing as we do that it is, we need not quarrel with her on these questions. But, we must remonstrate with her, and all others like her, when she permits, nay, encourages false interpretation of conditions as they exist.

"It must be stressed and stressed again that to select England, Denmark, France, or any other European nation, as examples when arguing for state-controlled medicine in America is a fundamental fallacy. What some claim has been accomplished in any of those countries is not **ipso facto**, any more applicable here, than is Copenhagen's reliance on bicycle transportation, London's taste for costly feudal pageantry, or Paris's characteristic artist life and sidewalk cafes.

"America is still America, and everything here is distinctly different from the Old World. Institutions in the United States cannot be modeled after those on the other side of the Atlantic, nor can Europe's ways of doing things be transplanted successfully. Differences in national temperament, historical background, customs, and economic character prevent it. From the time that the founding fathers began objecting to taxation without representation and the European brand of tyranny, this nation has grown along lines peculiar to itself; it cannot now begin trying out foreign methods.

AMERICA IS DIFFERENT

"In the opinion of some persons, compulsory health insurance as practiced in other countries may be considered as a boon to the workers in such countries; as free of damaging political manipulation; and as accomplishing its ends without impairing the standards of the medicine practiced. But, those same individuals if they were to look at the question fairly and squarely, would have to admit that their conclusions could not be applied to a compulsory health insurance system in America. For our political tradition is unlike the others. Our party system, which is indigenous, means politics is a dominant force in every governmental agency. Patronage and party lines are so important that even an instrumentality which should be as free of political taint as a health system should, could not escape it. Experiences for a century and a half have showed us that wherever there is political administration, there will be political maneuvering, and this will continue to be true until there is a drastic change in the American system of government.

"This is not, however, the case in England, France, and Denmark—where the Jacksonian attitude toward public life does not obtain, where politics cannot be something for the business man to jump in and out of, and where a political career is a lifelong habit, carefully prepared for in universities and perhaps handed down as a family heritage.

ECONOMY OF ITS OWN

"Moreover, America's economy is distinctly its own. Unlike European nations, where economic life is one of intensification and introversion because of long-fixed racial and geographic boundaries and permanently established economic stratification, the United States is still influenced by its recent rapidly moving frontier, its as yet unexploited wealth of resources, its late entry into national adolescence, and its uniquely composite people. The presence of economic elbowroom changes the picture here, just as the lack of it does abroad. It is still quite natural for an individual here to elevate himself economically in the course of a lifetime, but that has become an unlikely thing in other lands.

"These factors must be taken into consideration by Mrs. Armstrong and the others who hold out the Panel System and the Controle Medicale as evidence that the government can step into medicine successfully. It must be remembered, too, that we, as a people, have always regarded our government with an attitude different from that of the Danes, the Britons, and the French.

OUR IDEAS NOT LIKE THEIRS

"The Londoner or Parisian deems it quite natural that his government owns the railway and streetcar systems, controls broadcasting and licenses radios, and preempts the right to own or manage the banks, telegraph systems, and telephone companies. On the other hand, we in this country hold such situations to be unnatural and incompatible with traditional individualism here, and we have always been wary of any seeming government encroachment on what we consider the rightful realm of private enterprise.

"The Danish, English, and French people consider themselves governed from their national capitals, and they are accustomed to centralized control of police protection, universities and lower schools, and taxing systems. But we Americans are historically opposed to relinquishing the rights and powers of the local governmental units to the national capital. Here again our historical development, our economic peculiarities, and our geographic situation make us different.

"How, then, in the face of all this incontrovertible evidence that the American national char-

acter is like no other, can the agitators for political regimentation of medicine continue to cite the foreign systems as convincing proofs that we should follow those examples at home? (It is notable that they have quit talking about the German and Russian schemes, although the *Krankenkasse* was well established when the German dictator was still an infant and Soviet medicine should logically be the perfect prototype for the socializers. It must be true that the stigma attached to the political theories of the totalitarian states excludes their systems of medical practice from use as attractive examples.)

"A further unique characteristic of the American scene is that it is still believed essential here to air both sides to a controversy. Hence it is incumbent upon us to expose the fallacy in this argument. We must point out to the American people that just because compulsory health insurance in certain foreign countries has provoked a great deal of study over here, it does not follow that we must accept the results of that study as containing an answer to the fundamental question of improving national health in America—a land which already has a better health record than any other in the world. We must promote the theory that this problem can be solved in the American way, and we must insist that in the discussion of that solution the foreign systems of regimented medicine cannot logically and convincingly be used as cases in point—because they don't fit our picture!"

SCIENTIFIC ADDRESSES

The scientific program was opened by Dr. Frederick Christopher, associate professor of surgery at Northwestern University Medical School, Chicago, with an address on "The Treatment of Wounds", discussed by Dr. Donald M. Glover, Cleveland. Dr. Samuel A. Levine, assistant professor of medicine, Harvard University Medical School, Boston, spoke on "The Interpretation of a Systolic Murmur". Dr. Roy W. Scott, Cleveland, was the discussant. "Carcinoma of the Stomach", was the subject of another address by Dr. Christopher, discussed by Dr. V. C. Rowland, Cleveland. The closing talk was made by Dr. Levine, on "The Prognosis of Rheumatic Heart Disease". The discussant was Dr. Hubert C. King, Cleveland. The program was arranged by Dr. E. P. McNamee, Councilor for the Fifth District, and Dr. A. C. Ernstene, chairman of the Program Committee of the Academy of Medicine of Cleveland.

Must Hold Dental License

A graduate dentist may not engage in the practice of dentistry as an intern in a hospital or public institution in this state unless he first obtains a dental license from the Ohio State Dental Board, according to Opinion No. 1270 issued by Attorney General Thomas J. Herbert, October 7.

Columbus Children's Hospital Plans Clinic Day Program, Nov. 10

In honor of the opening of the Amelia and Julius Marks Memorial Addition and the expansion of the facilities of Columbus Children's Hospital, the hospital will hold its First Annual Clinic Day on Friday, November 10. The program follows:

9:30 A.M.—Registration.

10:15 A.M.—Medical Ward Walks, Dispensary Clinics, Surgical Clinics.

11:30 A.M.—Meeting in Assembly Room. Discussion of Cases Observed.

12:45 P.M.—Luncheon at the Hospital.

2:00 P.M.—Round-table Discussions of Selected Cases.

3:30 P.M.—Case Presentations:

1. Treatment of minor orthopedic problems.
2. Care of the premature.
3. The tonsils and adenoid problem.
4. Care of the new born.
5. Hypoglycemia.
6. Mental impressions.
7. Heart lesions in childhood.
8. Treatment of diarrhea.

6:30 P.M.—Dinner at the Hospital.

8:00 P.M.—"What I Do Not Know About Endocrines", by Dr. A. Graeme Mitchell, professor of pediatrics, University of Cincinnati College of Medicine.

Physicians from Central Ohio are urged to attend.

Northwestern Ohio Medical Meeting at Van Wert Well Attended

One hundred twenty-five physicians attended the Ninety-Fifth Annual Meeting of the Northwestern Ohio Medical Association, October 3, at the Strand Theater, Van Wert. Speakers included the following members of the faculty of the University of Michigan Medical School: Dr. A. C. Furstenburg, dean; Dr. Carl E. Badgley, professor of orthopedic surgery; Dr. Frederick A. Coller, professor of surgery; Dr. J. T. Bradbury, department of obstetrics and gynecology; Dr. Harry A. Towsley, department of pediatrics. Other speakers were Dr. Walter M. Simpson, director of the Kettering Institute, Dayton; Dr. Edward J. McCormick, Toledo, Councilor for the Fourth District, and Charles S. Nelson, Executive Secretary of the Ohio State Medical Association.

New officers of the Northwestern Ohio Medical Association are: Dr. D. R. Spitler, Hoytville, president; Dr. F. G. Maurer, Lima, vice-president; Dr. B. F. Mowry, Findlay, secretary, and Dr. Roland H. Good, Van Wert, treasurer. The 1940 meeting will be held in Ottawa.

These Dangerous Proposals Must Be Defeated On NOVEMBER 7!

Vote "No" and Get Your Relatives, Friends and Acquaintances to Vote "No" on Both of These Schemes, Known as the "Bigelow Amendments"

Save Ohio From Financial Ruin; Preserve Democratic Government In Ohio!

Your "No" Vote Will Not Be Enough—You Must Get Others To Go to the Polls on November 7 to Help Defeat These Crack-Pot Proposals

When You Mark the "Questions and Issues" Ballot Handed You at the Polls on Nov. 7 Be Sure to Put Your "X" Before "NO" Opposite the Second and Third Proposals on That Ballot

(Partial Sample Ballot)

QUESTIONS OR ISSUES

PROPOSED AMENDMENT TO THE CONSTITUTION OF OHIO
(Proposed by Initiative Petition)
USE X ONLY IN MARKING BALLOT

	YES
X	NO

An amendment to the constitution of the State of Ohio proposing the adoption of a new section to be known as Section 13 of Article XII.

The amendment proposes to provide pensions to persons who are not under conviction of crime, who are sixty years of age or over, retired from gainful occupation as wage earners, citizens of the State of Ohio or those who may become citizens after its adoption, and who reside in the State for ten years or less time should the legislature by law so provide. Such payments supplement all sources of private income. Revenue for payment of such pensions is to be derived from a special tax of two percent on certain lands, and such revenue used before revenues from other sources are used and from revenue derived from a state income tax automatically enforceable. While the amendment is declared to be effective without enabling legislation, laws not inconsistent with its provisions, may be passed in furtherance of its purpose, and it is provided that such laws may be passed either by the legislature or by direct vote of the people with the powers of the initiative and referendum. All provisions of law or constitution conflicting with the amendment are to be construed as being amended or superseded with respect to such conflict.

PROPOSED AMENDMENT TO THE CONSTITUTION OF OHIO
(Proposed by Initiative Petition)
USE X ONLY IN MARKING BALLOT

	YES
X	NO

An amendment to the constitution of the State of Ohio proposing the adoption of a new section to be known as Section 1 (h) of Article II.

This amendment provides that the signatures of at least 100,000 qualified electors to be secured at large shall qualify an Initiative Petition proposing an amendment to the Constitution of the State of Ohio; it further provides that the signatures of at least 50,000 qualified electors to be secured at large shall qualify an Initiative Petition proposing a law on any subject whatsoever, the full text of which shall be set forth in the petition Proposed laws are to be submitted direct to the voters without first being submitted to the Legislature. The present provision that the ward and precinct of signers shall be stated is abolished and there is substituted the requirement that only the residence address showing city or township shall be required.

Plans for 1940 Annual Meeting Made at Joint Conference of Committee on Scientific Work and Section Officers

PRELIMINARY plans for the Ninety-Fourth Annual Meeting of the Ohio State Medical Association, to be held at the Netherland Plaza, Cincinnati, Tuesday, Wednesday and Thursday, May 14, 15 and 16, 1940, were formulated at a meeting of the Committee on Scientific Work, followed by a joint conference with officers of the Scientific Sections, on Sunday, September 10, at the State Headquarters Office, Columbus.

The following members of the committee and section officers were in attendance: Dr. Claude B. Norris, Youngstown, chairman; Dr. Fred W. Dixon, Cleveland, Dr. M. M. Zinninger, Cincinnati, Dr. Albert F. Kuhl, Dayton, Dr. Stanley D. Giffen, Toledo, members of the committee; Dr. Wm. P. Garver, Cleveland, chairman, and Dr. John L. Stifel, Toledo, secretary, Section on Medicine; Dr. John V. Hartman, Findlay, chairman, and Dr. Robt. T. Allison, Jr., Akron, secretary, Section on Surgery; Dr. R. C. Doan, Miamisburg, chairman, Section on Obstetrics and Gynecology; Dr. W. B. Taggart, Dayton, chairman, and Dr. E. A. Wagner, Cincinnati, secretary, Section on Pediatrics; Dr. Edward King, Cincinnati, chairman, and Dr. W. H. Evans, Youngstown, secretary, Section on Eye, Ear, Nose and Throat; Dr. Richard E. Stout, Cleveland, chairman, and Dr. Nicholas Michael, Columbus, secretary, Section on Nervous and Mental Diseases; Dr. Beatrice T. Hagen, Zanesville, secretary, Section on Public Health and Preventive Medicine.

A skeleton outline of the program for the three days' meeting was worked out as follows:

TUESDAY, MAY 14

9:00 A.M.	Opening of Registration Headquarters and the Exhibits.
1:00 P.M.	Opening session of House of Delegates.
2:30- 4:00 P.M.	Ten Round-Table Conferences.
4:00- 5:00 P.M.	Symposium on Medical Economics.
8:00-10:00 P.M.	First General Session. Two out-of-state guest speakers.

WEDNESDAY, MAY 15

9:30 A.M.	Meetings of Sections on Surgery; Pediatrics; Eye, Ear, Nose and Throat.
12:00 Noon	House of Delegates Luncheon and business session; Public Health Luncheon; Special luncheons arranged by Sections or Special Societies.
2:30- 5:00 P.M.	Second General Session. Four Ohio speakers.
8:00-10:00 P.M.	Third General Session. Two out-of-state guest speakers.

THURSDAY, MAY 16

9:30 A.M.	Meetings of Sections on Medicine; Obstetrics and Gynecology; Nervous and Mental Diseases.
12:00 Noon	Special luncheons arranged by Sections or Special Societies.
1:30- 2:30 P.M.	Fourth General Session. Out-of-state guest speaker.
2:30- 4:00 P.M.	Ten Round-Table Conferences.
4:00- 5:00 P.M.	Clinical Pathological Conference.
7:30 P.M.	Annual Banquet.

Sub-chairmen to handle various phases of the program were appointed by Dr. Norris, the chairman, as follows: **Educational Exhibits**—Dr. M. M. Zinninger; **Round-Table Conferences**—Dr. Fred W. Dixon; **Out-of-State Guest Speakers**—Dr. Albert F. Kuhl; **Ohio Speakers at General Sessions**—Dr. Stanley D. Giffen.

Those present offered suggestions regarding subjects to be covered in the Round-Table Conferences and by the Educational Exhibits. The committee voted to obtain Educational Exhibits by invitation.

ROUND-TABLE CONFERENCES

The following procedure with respect to the Round-Table Conferences was adopted:

(a) There shall be 20 Round-Table Conferences.

(b) The attendance at each conference shall be limited to not more than 50.

(c) Admission to each conference shall be by card, to be obtained by a member at a special registration desk near the main registration headquarters. Only 50 cards shall be issued for each conference and not more than one card shall be issued to an individual member on either day on which such conferences are scheduled. After a conference has been under way for a period of 15 minutes, members not holding cards or members holding cards for some other conference may be admitted to a particular conference, providing those in attendance at that conference do not exceed 50.

(d) Each conference shall have a chairman and a leader to be selected by the Committee on Scientific Work. The chairman need not participate in the conference discussion, but should be

a good presiding officer with ability to keep the conference moving and in the right channels. The leader may select, in advance of the meeting, competent men to take part in the discussion, but the names of such discussants shall not appear in the program, so as to make the conference entirely informal.

(e) Use of apparatus, slides, etc., shall not be permitted in order to avoid a stereotyped program and confusion.

At the conference with the section officers, suggestions relative to the entire program were exchanged and the following rules and regulations to govern section programs were approved:

RULES AND REGULATIONS

1. Each of the Scientific Sections (Medicine; Surgery; Eye, Ear, Nose and Throat; Obstetrics and Gynecology; Pediatrics; Nervous and Mental Diseases; and Public Health and Preventive Medicine) shall be entitled to one session.
2. Section sessions will be held as follows: May 15—9:30 A.M., Surgery; Pediatrics; Eye, Ear, Nose and Throat. May 15—Noon Luncheon, Public Health and Preventive Medicine. May 16—9:30 A.M., Medicine; Obstetrics and Gynecology; Nervous and Mental Diseases.
3. Each section program shall consist of five (5) papers of 15 minutes duration, each to be followed by a period not to exceed 10 minutes for general discussion. No discussant shall be entitled to the floor more than once in the discussion of a paper and he shall be limited to three minutes for his remarks.
4. Only original papers shall be accepted, based on personal observation and direct experience of the essayist.
5. The section officers shall constitute the first board of selection. Final and official acceptance of the essayists shall lie with the Committee on Scientific Work and the Council.
6. Section officers shall endeavor to avoid duplications and repetitions from recent years, both in participants and subjects.
7. No member shall appear on any section program more than once at this Annual Meeting.
8. In submitting the names of essayists and titles of papers, section officers shall present an abstract of each paper, prepared by the essayist. Such abstract shall not exceed 150 words.
9. The Committee on Scientific Work shall have the right to reject any essayist or subject and require substitutions.
10. In view of Regulation No. 9, it is imperative that officers of each Scientific Section submit more than the required number (5) of essayists and subjects. The officers of each section shall submit the names of at least 10 essayists and subjects, indicating which five of the 10 are preferred, so that the Committee on Scientific Work will have some leeway in determining subjects for a balanced Annual Meeting Program.
11. In inviting an essayist to take part in a section program, section officers should make it clear to him that there is no assurance, at the time the invitation is extended, that he will be definitely scheduled. It should be pointed out that the Committee on Scientific Work will be the final judge and that there will be a place for only five (5) essayists on the section program. Moreover, it should be explained that frequently it is necessary to reject a speaker or subject in order to avoid duplications in subjects and in order to assemble a balanced Annual Meeting Program. The section officers would be wise to explain also, that places on the Annual Meeting Program are limited and, for that reason, it is impossible each year to schedule all who may be invited or who may request a place on the program. Those invited to submit subjects for consideration should be informed that they need not submit, in the first instance, a complete abstract of the subject but only a rather general outline for preliminary review.
12. Suggested programs should be submitted by scientific section officers to the Committee on Scientific Work no later than December 15, 1939. To facilitate procedure, all communications and material should be sent to the Executive Secretary, State Headquarters Office, 1005 Hartman Theater Building, Columbus, Ohio.

At the suggestion of the section officers, the Committee on Scientific Work consented to prepare a memorandum which might be sent to essayists setting forth certain suggestions relative to the preparation of papers, presentation of material, use of slides, etc.

Section officers were requested by the committee to send to the Executive Secretary, Columbus, on or before December 15 a tentative outline of their respective section programs.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16, 1940.

American Medical Association, New York, June 10-14, 1940.

American Academy of Pediatrics, Cincinnati, Nov. 16-18.

American Society of Tropical Medicine, Memphis, Nov. 21-24.

Northern Tri-State Medical Association, Battle Creek, Mich., April 9, 1940.

Central Society for Clinical Research, Chicago, Nov. 3-4.

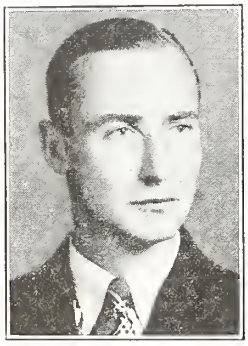
Radiological Society of North America, Atlanta, Ga., Dec. 11-15.

Society for the Study of Asthma and Allied Conditions, Philadelphia, Dec. 9.

Southern Medical Association, Memphis, Tenn., Nov. 21-24.

Southern Surgical Association, Augusta, Ga., Dec. 5-7.

Attendance at Postgraduate Lectures Held To Date Is Excellent; Programs for Forthcoming Sessions



M. Tischer Hoerner, M.D.

ATTENDANCE at the early sessions of the Second Course of the Ohio State Medical Association's Regional Postgraduate Lectures indicates that physicians in the 78 counties comprising the five regions welcome this opportunity to keep their medical knowledge up to date.

As *The Journal* went to press, two sessions had been held in each region, with a total registration of 911. The quality of the lectures has been generally good, and the subjects discussed in a practical and useful manner.

Attendance at the first two sessions follows: Region A—Findlay, September 28, 105; Defiance, October 12, 99; Region B—Chillicothe, September 28, 89; October 12, 113; Region C—Mansfield, September 20, 109; October 4, 140 (31 physicians' wives played bridge during this session); Region D—Cambridge, September 28, 66; October 12, 48; Region E—Troy, September 28, 70; October 12, 72.



Albert D. Frost, M.D.



Elmer G. Horton, M.D.

PHOTOGRAPHS OF LECTURERS

Photographs of some of the speakers who will appear on the program in the various regions during November accompany this article. Photographs of the lecturers scheduled for the first three sessions were published in the September and October issues of *The Journal*.

All members of the Association are urged by the Committee on Education and the Sub-Committee on Regional Postgraduate Lectures to attend these meetings.

A list of future lectures in each region, with dates, speakers and their subjects, follows:



R. S. Dinsmore, M.D.

REGION A—FINDLAY-DEFIANCE

November 9, Defiance—"Acute Surgical Conditions in Childhood," Dr. M. Tischer Hoerner, Dayton; "Present-Day Viewpoints on the Diagnosis and Treatment of Cancer," Dr. L. A. Pomeroy, Cleveland.

November 21, Findlay—"Convulsions in Childhood", Dr. Elmer G. Horton, Columbus; "Helping the Public Reduce the Mortality of Acute Appendicitis", Dr. R. S. Dinsmore, Cleveland.

December 7, Defiance—"Importance of Routine Rectal Examinations", Dr. Charles E. Howard, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions", Dr. John E. L. Keyes, Cleveland.



L. L. Bigelow, M.D.

REGION B—CHILLICOTHE

November 9—"Acute Surgical Conditions in Childhood," Dr. John W. Holloway, Cleveland;



Paul J. Fuzy, M.D.



Sterling H. Ashmun, M.D.

"Present-Day Viewpoints on Diagnosis and Treatment of Cancer," Dr. Mont R. Reid, Cincinnati.

November 21—"Convulsions in Childhood," Dr. Sterling H. Ashmun, Dayton; "Importance of Routine Rectal Examinations," Dr. Clayton C. Perry, Cleveland.

December 7—"The Deformities of Poliomyelitis Must Be Prevented", Dr. Frank E. Stevenson, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions", Dr. Derrick T. Vail, Cincinnati.

REGION C—MANSFIELD

November 1—"Acute Surgical Conditions in Childhood," Dr. L. L. Bigelow, Columbus; "Importance of Routine Rectal Examinations," Dr. Paul J. Fuzy, Youngstown.

November 15—"The Deformities of Poliomyelitis Must Be Prevented," Dr. Frank E. Stevenson, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions," Dr. Albert D. Frost, Columbus.

December 6—"Helping the Public Reduce the Mortality Rate of Acute Appendicitis," Dr. A. E. Brandt, Youngstown; "Convulsions in Childhood," Dr. Edward A. Wagner, Cincinnati.

REGION D—CAMBRIDGE

November 9—"Bleeding From the Uterus," Dr. Edwin J. Stedem, Columbus; "The Deformities of Poliomyelitis Must Be Prevented", Dr. John A. Toomey, Cleveland.

November 21—"Obstetrics in the Home," Dr. Charles W. Pavey, Columbus; "How to Handle the Patient With Asthma," Dr. Roger O. Egeberg, Cleveland.

December 7—"Hints to the General Practitioner in the Handling of Acute Eye Conditions," Dr. A. B. Bruner, Cleveland; "Present-Day Viewpoints on the Diagnosis and Treatment of Cancer," Dr. Edgar C. Baker, Youngstown.

REGION E—TROY

November 9—"Obstetrics in the Home," Dr. Ralph W. Eddy, Cincinnati; "How to Handle the Patient With Asthma," Dr. Milton B. Cohen, Cleveland.

November 21—"Acute Surgical Conditions in Childhood," Dr. Lloyd B. Johnston, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions," Dr. A. D. Ruedemann, Cleveland.

December 7—"Convulsions in Childhood," Dr. Robert A. Lyon, Cincinnati; "Importance of Routine Rectal Examinations," Dr. W. W. Green, Toledo.



Ralph W. Eddy, M.D.



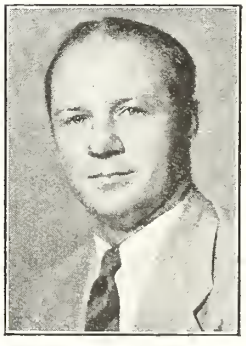
Lloyd B. Johnston, M.D.



Roger O. Egeberg, M.D.



Milton B. Cohen, M.D.



A. D. Ruedemann, M.D.

In Our Opinion: Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

U. S. Supreme Court Refuses To Upset Decision Which Exonerated A.M.A.

As this issue of *The Journal* went to press, news dispatches from Washington announced that the United States Supreme Court had refused to review a decision of the United States Court for the District of Columbia quashing indictments against the American Medical Association and certain officials of the A.M.A. on charges of violating the anti-trust laws. (Pages 990-993, September, 1939 issue, *The Journal.)*

To the man on the street, the action of the United States Supreme Court on October 23 in refusing to review the verdict of the lower court which had exonerated the A.M.A. and its officers means but one thing—a clear-cut victory on a second occasion for the medical profession.

As far as the layman is concerned, the Supreme Court said: "The fantastic charges of the Department of Justice are the bunk. Justice Proctor of the District of Columbia court was absolutely correct when he quashed the indictments in a stinging decision."

It is conceded that attorneys might place a different construction on the court's decision. There may have been some technicality which was the basis for the decision. One report from Washington quoted the Department of Justice as stating that the court's action had no bearing on the merits of the case and that the court simply adhered to precedent in refusing jurisdiction of a case which had been appealed to the Supreme Court directly from a trial court without going through a court of appeals.

However, to us this slant on the case doesn't make sense. The Department of Justice must be familiar with precedent in such cases. Why did it go to the trouble of appealing the case directly to the Supreme Court if it knew at that time that the court would refuse to review? We are inclined to believe that the Department of Justice tried to pull a fast one and got socked in the kisser.

At any rate, the A.M.A. has two victories to its credit to date in the current campaign to smear the medical profession. The next move—if any—on the part of those who are determined to discredit the profession in the eyes of the people will be watched with interest, to say the least.

The greatest of faults, I should say, is to be conscious of none.—Carlyle.

Educating Public on Medical Matters Wins Endorsement

Solid endorsement of the State Association's purpose in establishing the Bureau of Public Education comes from an unexpected but none the less highly esteemed quarter this month.

Mrs. Charlotte Reeve Conover, whose illustrious father, Dr. John Charles Reeve, a former president of the Ohio State Medical Association, who is known by name to every student of Ohio medical history, comments pertinently on present-day public attitudes toward the profession in one of her recent "Mrs. Conover's Corner" columns in the Sunday *Dayton News.*

"It seems there is necessity for some kind of publicity," she declares, "which will teach the ordinary run of people what one has to do to become a doctor—of the years of study, from graduation and lasting all their lives afterward, of observation, of experimentation, of reading book after book and studying case after case, never guessing at anything, but always checking up and proving."

Earlier in the same article she writes: "Every once in a while we are met with a peculiar survival of medievalism that persists despite what we are accustomed to consider the proud literacy of the United States. In spite of schools, colleges, newspapers, radio, and public lectures, we still encounter here and there a prejudice against the medical profession and medicine itself.

"It is not a grievance against any particular doctor with whom one has had cause to find fault. It is a conviction that the whole study and practice of medicine is somehow unnecessary, useless, and carried on only to take money out of one's pockets and give him nothing in return.

"This opinion is generally intrenched in minds which a generation or so ago would be occupied with spirit rappings and table tipping, minds of those who instead of having a doctor would pay a fortune teller and have more faith in him. . . ."

What more acceptable approbation of the idea behind the new Bureau of Public Education could be brought to attention? And who is there better qualified to make this statement than Mrs. Conover?

Here in four plain, direct paragraphs the reason for this expansion of the activities of medical organization is set forth by one who was reared in an atmosphere of pioneer medicine and has stayed on to learn of the wonders of the modern science of prolonging and improving life. Behind her terse statement is the force of a mellowed

judgment which comes from remaining mentally alert while vast and rapid changes are taking place.

Mrs. Conover's attitudes were formed at a time when the very idea of publicity in medicine was anathema, yet she realizes that today, because of an increasingly educated and inquisitive public and because of the ever more concerted efforts made on all sides to capture public attention, there is real need for an organized program of medical public relations.

This appreciation of the demands of changing times the historian-columnist-author must have inherited from her father. Her opinions expressed in this edition of the "corner" sound very like Dr. Reeve, who said in his inaugural address as president of the Ohio State Medical Association 56 years ago:

"One fact in the history of medicine stands prominent—it has always taken on the character of the age."

The American physician represents the most highly educated group of the community but he rarely functions as a citizen. How can the medical profession exercise consideration from our law makers while the physician stands aloof from the actual exercise of citizenship?—Nathan N. Van Etten, M.D., President-Elect, American Medical Association.

Put the Material Made Available to You to Work

In almost every issue of *The Journal*, if not every issue, there appears at least one article dealing with the social, economic or legislative aspects of the practice of medicine.

The purpose of *The Journal* in publishing articles of this kind is two-fold. In the first place, to keep the membership informed on developments and to give members news which may not be available to them through other sources. Secondly, to give members basic material which they can use in preparing addresses on "medical economics" before medical or public gatherings.

In our opinion the second point needs special emphasis. We have been hammering away on the fact that it is the obligation of each physician to take a part in public relations. We have suggested that each physician make at least one talk during the year before some lay group for the purpose of presenting the views of the medical profession on current medical and health issues. To assist members in preparing themselves for such talks, *The Journal* has endeavored to present authoritative information on many phases of the bigger issues.

Obviously, *The Journal*, even if it desired to do so, cannot compel members to read these articles and put them to good use. Nevertheless, it sincerely hopes that many members will do so.

What this puzzled world needs perhaps is more study of the past, fewer commissions and surveys of the present, and a greater number of philosophically minded, self-supporting and law-abiding persons who can see all round their particular problem and independently devote themselves to it as do most doctors".—Harvey W. Cushing, M.D., May 20, 1933.

It's About Time To Give the "Georges" Some Reinforcements

Once upon a time there was a district medical meeting. The program consisted of two excellent scientific talks and a talk on "medical economics". It is reported that there was sustained interest in the program until the speaker on "medical economics" was introduced, whereupon two-thirds of those in attendance staged an exodus resembling the flight of the Children of Israel from Egypt.

The reason? What do you think?

We are confident that those who left the meeting had no intention of being discourteous. It is quite probable that the hour was getting late—that some of those who left had to keep office engagements. Neverthless, the walk-out on a discussion of "medical economics" causes one to pause and cogitate.

Is it possible that members of the medical profession have no desire any longer to discuss and have discussed the social, economic and legislative problems which are of vital importance to the practice of medicine?

We aren't satisfied that this is the case—at least we believe that most physicians are against proposed changes which would have an important effect on present-day medical practice.

In our opinion the episode described is only an example of the attitude of too many physicians. Almost every physician resents meddling on the part of the reformers and politicians and he wants a fair break economically. Nevertheless, too few are willing to exert a little time and effort to activities designed to protect the individual physician and the profession a a whole against the things which menace the profession and the practice of medicine. "Let George do it" is preached and practiced by too many members of the profession, including many of those who protest the loudest.

For our part we are willing to credit this attitude to thoughtlessness. But, that's not the important point. What is going to happen if this attitude continues? The "Georges" have been doing a whale of a good job—so far. With the pressure becoming more and more severe day

after day, we doubt if the lines will hold unless the entire profession awakens and throws its full strength into the battle. A sturdy defense and an effective offense cannot be maintained unless each physician does something for the cause.

Call this preaching if you please, but whatever it may be, it's the gospel truth and every blessed member of the Ohio State Medical Association knows it is.

Program for the 1940 Annual Meeting of the State Association is now being formulated. Those who have suggestions should send them immediately to the Committee on Scientific Work, in care of the State Headquarters Office.

Carrying Coals to Newcastle Important On Some Occasions

Physicians who are active members of their county societies and the Ohio State Medical Association know the benefits of affiliation with these societies. Apparently most of the practicing physicians of Ohio feel the same way about it, for 80 per cent of them are members of the Ohio State Medical Association. It would, therefore, appear to be carrying coals to Newcastle to editorialize in these columns on the value of membership in medical organization. We're going to assume, however, that some time or other coals have been carried to Newcastle and, in this particular case, we'll let another writer do the carrying.

Says *The Weekly Roster and Medical Digest*, top-notch publication of the Philadelphia County Medical Society:

"This perennial theme loses none of its significance by reason of its age. In this respect it is like eternal salvation—no opposition to the contentions regarding it but sufficient indifference to justify continually plugging for it. There is scarcely a day goes by but what there is an inquiry from some source as to whether Doctor So-and-So is a member of this county society. Somebody on the outside must look upon membership in the society as a certificate of character. We note with particular gratification also that hospitals are beginning to show curiosity as to the affiliation of their staff members, senior as well as juniors, with the society. Those acquainted with the medical history of this county society, and in fact all the other county societies in this state, are already familiar with the high regard of the courts and the liability insurance carriers for the physicians who are members of their respective county societies. Those physicians not affiliated with the county society expose themselves to a certain degree of suspicion, perhaps unjustified, but suspicion never waits for justification. It is always ready to attach itself to anyone on the slightest provocation.

"The county society is primarily dedicated to the improvement of the medical education of its members and the maintenance of the highest type of conduct not only between the members but between the members and the public. It is not a monopoly in restraint of trade except in so far as by its good offices it reduces mortality and morbidity, and thus reduces the field for exploitation by its own members. In other lines such objectives would be put down as pure lunacy. . . .

"A large group such as comprise this society is in position to provide many advantages denied to the individual. If you are acquainted with some diffident person who is not sure of his qualifications help him to make himself eligible for membership and share in the privileges and opportunities which you now enjoy."

Make it a point to speak to all detail men about the benefits which would accrue to their respective firms by exhibiting at the 1940 Annual Meeting at Cincinnati next May and suggest inquiry be made at the Headquarters Office regarding exhibit arrangements.

A Sample of Some of the Bunk Which Is Fed to the Public

Clipping services are mighty interesting mechanisms. They bring to your desk daily some of the most interesting, as well as the most ridiculous, views and comments expressed by John Doe or Mary Roe on a variety of subjects as reported in the daily press.

The other day we happened to run across a clipping which offers a perfect example of the kind of bunk which is being fed the public by those uninformed about the questions they are trying to discuss.

The article was a report on a meeting of farmers at which the speaker utilized his time by plugging for the organization of cooperatives in the field of medical service. Among other remarks he made this statement, and we assume the reporter quoted him correctly:

"Because the American people are so reticent about talking with their family doctor, the great manufacturers of proprietary drugs prey upon the public pocketbook until the individual spends more for patent medicines than competent medical examination would cost".

We wouldn't quarrel with the statement that the public spends entirely too much for patent medicines—also too much for the worthless services of quacks and cultists. But, we just can't swallow the inference that the physician is to blame and that cooperative medicine is the great solution to this problem.

Cooperative medicine, with its inherent evils, will only multiply the problems and further aggravate an already aggravated condition. Would the growth of cooperative medicine, diminish the public's appetite for nostrums and

patent medicines? In our opinion, it would not. Will cooperative medicine make the people less reticent about talking over matters with the family doctor? The answer is "no".

In our opinion, the proper approach is through public education regarding medical and health facts. Blaming the medical profession for the people's reticence and setting up a scheme of medical service which is shot full with flaws will not do the job. Moreover, such tactics do not, in the final analysis, serve the best interests of the people about whom so much concern is being displayed.

To allow government officials to play with the $4,000,000,000 political football of socialized medicine would be comparable to using dynamite for a tonsillectomy: the tonsils would indeed be gone, but so would the patient's head.—Catholic Union and Times, Buffalo, N. Y.

A Label Which Fits the Wagner Health Proposal

According to Allen and Pearson in the "Washington Merry-Go-Round", "Federal Security Administrator Paul McNutt has held several private conferences with opposing officials of the American Medical Association in an effort to work out a nation-wide public health bill". In a P.S., they stated that "the administration plans to push such a measure at the regular session of Congress".

We don't know whether or not such a conference was held. We don't know what was said if such a conference was held. We do know that President Roosevelt in referring to the California "ham and egg" pension plan and the Bigelow proposals in Ohio, labeled them "short-cuts to Utopia". We don't know exactly what "Utopia" means but we rather imagine that the President did not intend to commend the crackpot pension schemes when he described them in that manner. Maybe he had in mind what one editor said in defining short-cuts to Utopia as "dangerous, delusive cure-alls, to be avoided like a pestilence".

When the Congress at its regular session has the Wagner National Health Bill or some similar objectionable measure thrown into its lap, we hope that someone will write into the record the Rooseveltian phrase about "short-cuts to Utopia".

But, to get back to Mr. McNutt. The fact that he was willing to confer with those competent to give advice on medical and public health questions is to his credit. Perhaps he, too, learned at the reported conference that there are no short-cuts to medical and health Utopias.

An attractive program is the most essential and necessary step in creating interest in any society.—Southern Medicine and Surgery.

A Sign Doesn't Have To Be Neon To Be In Poor Taste

"Are Neon signs ethical?" This question was raised recently by several physicians in Indiana, and was referred by the Indiana State Medical Association to its Bureau of Publicity, which was authorized by the House of Delegates of that Association to give opinions on certain matters involving the principles of medical ethics.

Here's what the Bureau said:

"Of course a great deal depends upon the size, the location and the prominence of such signs. A sign does not have to be a neon sign to be in bad taste. Lettering on an office window or a door which is over-conspicuous in size or in coloring is bad taste and hence unethical. If all the physicians in a town use a sign of the same size it would not be unethical, but if one physician used a neon sign and the others did not use neon signs, that would give undue prominence to one physician's name, and hence the Bureau feels that the use of a neon sign in this instance would be a breach of local custom and therefore unethical."

In our opinion, the Bureau hit the nail on the head when it said:

"A sign does not have to be a neon sign to be in bad taste." Have you ever noticed a sign outside a physician's office which was far from being in good taste. We have.

The Principles of Medical Ethics of the American Medical Association states in Chapter 3, Section 4, "It is unprofessional . . . to employ any methods to gain the attention of the public for the purpose of obtaining patients". In that same section also appears the following, "The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity". This is a fundamental truism in ethics.

"John G. Jones, M.D.",—a plain, dignified, inconspicuous, lettered sign, without embellishments, in our opinion is the only appropriate sign for a physician.

A doctor who prescribes an identical treatment for an identical disease in two individuals and expects an identical development may be properly classed as a social menace. No less a social menace are the social philosophers who forget the individual, his capacity for reacting in a different manner from others, and his generally wayward and incalculable behavior". — Lin Yutang in The Importance of Living.

It is said the average American family pays the doctor $75 a year. This will be real news to the doctor.—Norfolk Ledger-Dispatch.

Do You Know - - -

The 7,500,000 persons who are 65 years of age or older in the United States constitute only six per cent of the total population; yet fully one quarter of the 100,000 annual accident fatalities in our country are among persons who have passed their 65th birthday, according to the Statistical Bulletin of the Metropolitan Life Insurance Company.

* * *

Statistics compiled by the State Department of Health reveal that 349 cases of carbon monoxide resulting in 112 fatalities were reported in Ohio during the 12-month period from October 1, 1938 through September 30, 1939. Domestic heating appliances were the source of 211 of these cases, of which 38 were fatal. One hundred thirty-eight cases, 74 of them fatal, were attributed to carbon monoxide poisoning from motor exhausts.

* * *

Dr. Ralph M. Watkins, chairman of the Legislative Committee of the Cleveland Academy of Medicine, spoke on "Pending Legislation Affecting the Practice of Medicine", at a meeting of the Cleveland Dental Society, October 2.

* * *

Clinical pathological conferences are held on Friday morning of each week at the Youngstown Hospital, beginning at 11:30 o'clock. Physicians from neighboring towns are cordially invited to attend.

* * *

Among the speakers scheduled to address the second annual meeting of the American Academy of Dermatology and Syphilology at Philadelphia, November 6-8, are Dr. Harold N. Cole and Dr. Clyde L. Cummer, Cleveland. Dr. Cole is to speak on "Lymphogranuloma Venereum and Granuloma Venereum", and Dr. Cummer on "Diagnosis and Treatment of Lupus Erythematosus".

* * *

Dr. Franklin R. Miller, Cleveland, assistant professor of medicine at Western Reserve University School of Medicine, has accepted an appointment as assistant professor of medicine and assistant director of the department of hematology at Jefferson Medical College, Philadelphia.

* * *

Dr. Sidney McCurdy, supervisor of the Medical Section of the State Industrial Commission, attended the meeting of the International Association of Industrial Accident Boards and Commissions at Milwaukee, September 25-28.

* * *

North Carolina is the first state in the Union to have a compulsory immunization law against diphtheria.

St. Francis Hospital, Columbus, recently received a request for the hospitalization record of a patient admitted in 1876, '78 or '79. The records were checked and it was found the patient was admitted June 7, 1877, during a typhoid epidemic. The records at St. Francis date back to 1865.

* * *

Physicians in California must now report cases of epilepsy to the local health department. The information will be transmitted by the State Department of Health to the State Department of Motor Vehicles for use in checking applicants for driver's licenses.

* * *

President Robert M. Hutchins of the University of Chicago has announced that Rush Medical College, founded in 1842, will be closed to undergraduate students in 1942, and a graduate medical school established in its place.

* * *

Up to October 19, the State of Ohio has paid $49,255.56 to hospitals, fraternal and church societies and similar organizations, for redeemed sales tax stamps. It is estimated that $90,000 will be paid out this year to groups which are saving stamps.

* * *

The American Medical Association at its first session in 1848 requested that a Secretary of Health be provided to assist the Federal Government in health matters.

* * *

Major Harry O. Whitaker, Dublin physician, who recently retired as commanding officer of the medical detachment of the 166th Regiment, Ohio National Guard, was guest of honor at a banquet given at Delaware by members of the detachment. He was presented with a plaque, on which his service record was appropriately engraved.

* * *

A pneumonia-prevention campaign under the sponsorship of the United States Public Health Service and the local Board of Health is being contemplated in Cincinnati.

* * *

Dr. Harvey Williams Cushing, distinguished neurosurgeon who died at New Haven, Conn., October 7, was buried in Lake View Cemetery, Cleveland.

* * *

Speakers at the Kansas City Southwest Clinical Society Fall Conference, October 2-5, included Dr. Russell L. Haden, Cleveland; Dr. A. Graeme Mitchell, Cincinnati, and Dr. George M. Curtis, Columbus.

Definite Requirements Must Be Met by a Hospital In Order To Obtain "Registered Rating" by A.M.A. Council

IN order to qualify for publication in the American Medical Association Hospital Register, hospitals must meet certain requirements set up by the Council on Medical Education and Hospitals of the A.M.A. According to the most recent report of the Council, published in the March 11, 1939, issue of *The Journal of the A.M.A.*, 252 Ohio hospitals, sanatoriums and related institutions were registered in 1938, with a bed capacity of 54,302 and 2,616 bassinets. Hospitals in Ohio refused registration numbered 30, with a bed capacity of 655. Of the 252 registered hospitals, 43 met additional requirements qualifying them for internship.

Essentials of a registered hospital, as approved by the House of Delegates at the Ninetieth Annual Session of the American Medical Association at St. Louis, May 15-19, 1939, are:

ESSENTIALS LISTED

General Statement.—Hospitals should be organized and conducted primarily for the purpose of providing facilities where the sick and the injured of the community may be given scientific and ethical medical care.

Registration is a basic distinction between all recognized hospitals and those that are refused recognition. It is a prerequisite to the consideration of a hospital for approval for interns or for residencies in specialties.

The registration of hospitals, the approval of hospitals for interns, approval for residencies in specialties, and all other service of the Association regarding hospitals is carried on by the Council on Medical Education and Hospitals. Separate essentials have been adopted for each of these types of approval.

It is the desire of the Council to cooperate in every way for the improvement of hospital service, whereby the sick and injured may be provided with scientific and ethical medical care.

The Council does not have nor does it assume legal authority over any hospital. It recognizes clearly that the officers in charge of such institutions have the unquestioned right to conduct the hospitals in any way they may deem wise. If a hospital desires to have its name appear on the American Medical Association Hospital Register and thus have the endorsement of that Association, it should be willing to comply with the principles which the Council on Medical Education and Hospitals considers necessary.

I. Organization.—1. The organization should consist of a supreme governing body qualified to administer a hospital. This may be a board of trustees or directors, a partnership, or an individual. Such a board, partnership, or individual must assume final authority and responsibility for the administration.

2. There must be a well-qualified executive officer who may be designated as administrator, superintendent or director, or by some other title. This person should be responsible to the governing body for carrying out its policies. The executive officer should be assisted by competent personnel adequate to the needs of the institution.

II. Physical Plant.—1. The hospital plant should consist of modern, safe buildings maintained in a sanitary condition, provided with fire protection and adequately equipped and furnished for the comfort of patients. Equipment for diagnosis and treatment should be reasonably complete for all types of work the staff purports to carry on in the hospital.

2. Institutions accepting surgical and obstetric patients should provide a modernly equipped operating room, a delivery room, and a nursery. Hospitals that are strictly limited in the service they offer are not expected to have the complete organization and equipment of a general hospital.

III. Medical Staff.—1. Since the medical staff is the most important factor in the delivery of medical service to patients, too great care cannot be exercised in the selection of staff members. The staff should be limited to physicians holding the degree of doctor of medicine from medical colleges acceptable to the Council on Medical Education and Hospitals, having satisfactory qualifications as to training, licensure and ethical standing, and to dentists who are graduates of recognized dental colleges and whose professional ability and standing are known to the medical staff.

2. Osteopaths, chiropractors, and other cult practitioners outside the scope of regular medicine, or unethical physicians, may not be permitted to use the hospital's facilities. They may not enter data on the records, carry out diagnostic procedures or treatments, or in any way assist in doing this work.

3. The form of organization of the staff is determined by the size and the activity of the hospital in accordance with its needs.

4. In very small hospitals where there are few physicians and where an elaborate organization is not practicable, there should still be some authority competent to pass upon the qualifications of those who seek to use the hospital's facilities. Particular care should be exercised in the assignment of surgical priviliges since it is essential for the safety of patients that both the surgeon and his assistants be properly qualified.

5. Where further organization is needed, it

should consist of such officers as president, secretary, and others; and committees, such as executive, medical records and credentials, elected or appointed according to the constitution and by-laws.

6. Staff departments, such as medicine, obstetrics, and surgery, should be organized as may seem wise.

7. Staff meetings should be held for the review of the work of the hospital, the discussion of results, the reports of autopsy and pathologic studies, the presentation of papers and such other matters as concern the professional work of the hospital.

8. Minutes of all staff meetings and attendance records shall be kept by the secretary.

IV. Pathology and Laboratory Diagnosis.—1. The laboratory facilities should provide as complete a service as is practicable.

2. The pathologist should preferably be a physician who holds the certificate of the American Board of Pathology. Where it is not possible to employ the services of a pathologist directly, arrangements should be made for a consulting service for tissues, postmortem examinations, and the interpretation of the more difficult tests and examinations in clinical pathology. All surgical tissues should be examined, described and diagnosed by a pathologist.

3. The department should be equipped for all routine procedures and for whatever additional tests and examinations are frequently called for by the staff.

4. At least one well-trained clinical laboratory technician should be employed.

5. Reports of all work done in the department should be kept on file.

6. Autopsies. Every effort should be made to secure consent for the performance of autopsies. They should be conducted by a qualified pathologist or under his supervision, and protocols, including clinical summaries, should always be filed.

V. Radiology.—1. The responsibility for all radiologic examinations must rest on the physician-roentgenologist who is head of the department. His findings and conclusions for all examinations should be placed in the patient's chart. Nothing in this provision should preclude additional study and interpretations by qualified attending physicians on the staff.

2. The physician-roentgenologist should be preferably one who is a diplomate of the American Board of Radiology or a physician whose qualifications are acceptable to the Council on Medical Education and Hospitals of the American Medical Association.

3. It shall not be the policy of the hospital to make a profit from the department of radiology.

VI. Anesthesia.—The anesthesia service should be under the direction of competent medical personnel whenever possible. If a qualified specialist in anesthesiology is not available, supervision may be assigned to some member of the staff who has had special training in this field or to a nurse anesthetist whose qualifications are acceptable.

VII. Nursing Service.—1. A competent nursing service should be provided, adequate for complete coverage for both day and night periods, and for surgical and obstetric supervision. All nursing should be supervised by registered graduates. Hospitals that do general surgery should have a trained operating-room nurse.

2. Dietetics. The services of one or more graduate dietitians, as may be required, should be available for supervision of regular and special food services. Where graduates cannot be employed, these functions should be assumed by some competent person.

VIII. Pharmacy.—The handling of drugs should be properly supervised and should comply with all the legal regulations. Accurate records should be maintained. A qualified person should be placed in charge, preferably a graduate pharmacist; whatever arrangement is made, all prescriptions should be filled by a graduate pharmacist.

IX. Medical Records.—1. An adequate record system should be maintained in all departments. No certain forms are recommended since requirements vary greatly according to the size and type of hospital. Samples of suitable forms for all departments may be readily obtained from publishers of hospital records.

2. Case histories and physical examinations should be recorded immediately following the patient's admission. In no case should it be longer than 24 hours after admission. The history, physical examination, routine laboratory work, and provisional diagnosis should be recorded before an operation except in emergencies. The attending physician is directly responsible for the accuracy and completeness of case records, whether prepared by him or by another.

3. The usual case record consists of identification data, chief complaint, past medical history, family history, history of present illness, physical examination, provisional diagnosis; special reports such as consultations, clinical laboratory, pathology, X-ray, and the like; medical or surgical treatment, progress notes, final diagnosis, condition on discharge, and follow-up records; autopsy report when available.

4. No case record should be filed until it is complete and then only after it has been reviewed and signed by the attending physician.

5. Monthly and annual analyses of hospital service should be made in order that the staff may be in a position to improve its service.

X. Ethics.—In order that a hospital may be eligible for registration, it will, of course, be

expected that the staff and management conform to the principles of medical ethics of the American Medical Association with regard to advertising, commissions, division of fees, secret remedies, extravagant claims, over-commercialization, and in all other respects.

For additional information, write to Council on Medical Education and Hospitals, 535 North Dearborn Street, Chicago.

Standards for Hospital Radiological Departments Are Approved

A manual of Desirable Standards for Hospital Radiological Departments was recently issued by the American College of Radiology. Compiled by the Commission on Hospital Standards of the College, the standards have been approved by its Board of Chancellors, the Inter-Society Committee for Radiology and the Council on Medical Education and Hospitals of the American Medical Association. Copies of the manual can be obtained by writing the American College of Radiology, 540 North Michigan Ave., Chicago.

A condensed summary of the standards follows:

1. Radiologists privileged to practice in the hospital should be members of the medical staff.

2. Radiologists upon the medical staff should be restricted to physicians who are (a) graduates of medicine of acceptable medical schools, with a degree of Doctor of Medicine in good standing and legally licensed to practice in their respective states or provinces, and have had adequate training in radiology, and (b) worthy in character and in matters of professional ethics; that in this latter connection the practice of the division of fees, under any guise whatsoever, be prohibited.

3. The radiologist should initiate, and, with the approval of the governing board of the hospital, adopt rules, regulations and policies governing the professional work of the hospital department; he should attend the regular medical staff meetings; he should review the records of all patients with a view to extending the clinical experience of the staff of the X-ray department.

4. Accurate and complete radiological records should be written for all patients and filed in an acceptable manner in the hospital, a suitable cross-index file by disease being maintained.

5. Diagnostic and therapeutic facilities under competent medical supervision should be available for the study, diagnosis and treatment of patients, these to include (a) radiographic and fluoroscopic services and, when desired, (b) radiotherapeutic services.

Cincinnati—Dr. Michael R. Barrett has become associated with the medical staff of the Western and Southern Life Insurance Company.

Postgraduate Medical Session at Toledo University Scheduled for Nov. 3

All members of the medical profession are cordially invited to attend the Sixth Annual Postgraduate Day of the Medical Institute of the University of Toledo, which will be presented at the University Friday, November 3, beginning at 10:00 A.M. The program is dedicated to the memory of Dr. E. I. McKesson (1881-1935), who was one of the early experimenters in the field of anesthesia and devoted his life to creating and improving gas anesthesia apparatus.

The lecturers will be Dr. Willard O. Thompson, associate professor of medicine, Rush Medical College, University of Chicago, and Dr. Harry E. Mock, associate professor of surgery, Northwestern University Medical School.

Dr. John T. Murphy, Toledo, will preside at the morning session which will open at 10 o'clock with an address by Dr. Thompson, on "Treatment of Undescended Testes and Hypogenitalism". At 11 o'clock, Dr. Mock will speak on "Treatment of Injuries with Special Attention to Lacerations and Tendon Sutures".

"Treatment of Addison's Disease", will be the subject of the opening lecture by Dr. Thompson on the afternoon program, beginning at 2 o'clock. Dr. Mock will discuss "Treatment of Shock" at 3 o'clock.

A banquet will be held at 6 o'clock in the Student Union Building. President Philip C. Nash of the University of Toledo, will be toastmaster.

At 8 o'clock, Dr. Thompson will speak on "Treatment of Toxic Goiter", and Dr. Mock will lecture on "Treatment of Head Injuries" at 9 o'clock.

There will be no registration fee for this lecture series. Reservations for the evening dinner must be made in advance with George W. Cooley, executive secretary, Toledo Academy of Medicine, Monroe at Fifteenth St., Toledo, or by telephoning Main 2176, Toledo, on the morning of the meeting.

Open New Offices

Physicians who recently opened offices in Ohio include the following: Dr. Carl F. Goll, Hopedale; Dr. A. D. Miessner, Port Clinton; Dr. Elizabeth Workman, Bladensburg; Dr. Philip B. Giber, Girard; Dr. F. E. Mahla, Marion; Dr. H. H. McClellan, Dayton; Dr. J. O. Neese, Mt. Victory; Dr. Robert N. Finnical, Cadiz; Dr. Carroll H. Browning, Oberlin; Dr. Wildmer P. Ellis, Mt. Eaton; Dr. V. J. Murray, Fremont; Dr. John K. Humphries, Belle Center; Dr. William E. Russell, Genoa; Dr. Harold J. Bowman, Canton.

Mansfield—Dr. F. J. Heringhaus spoke on "Socialized Medicine" at the initial fall session of the Junior Sorosis Club.

The Physician's Secretary

STANLEY R. MAUCK

THE professional man, and especially the physician, has the success or failure of his career focused on himself. This is in contrast with the business world where the success of an enterprise often depends upon the organized efforts of the group. Because of the individualistic emphasis, the physician sometimes overlooks certain other factors which frequently have a direct bearing on his professional success. Failure to observe the importance of these influences, under the misguided impression that his own professional skill is the all-important thing, may be much more closely related to the physician's career than he realizes.

In this connection, the office secretary is a person to be considered. Possibly no physician likes to admit that his clientele is influenced by any persons about the office other than himself. In this unconscious conceit he is likely to be mistaken. Some physicians succeed in spite of a careless disregard for the patients' unfavorable reaction to office personnel; some may rightly be said to succeed, in part, because of genuinely good secretaries who have contributed much to the building of their practices; while many others will never know to what extent they have missed their maximum accomplishments by too little attention to this collateral detail. The right kind of an office assistant is a valuable aid to a physician; an unfortunate selection may be a decided handicap.

VERY IMPORTANT FACTOR

The physician is quite likely to be blissfully ignorant of the importance of a courteous, pleasant "saleslady" in the outer office, unconscious of the fact that the psychological reaction of his patients to the office environment may contribute to a favorable or an unfavorable attitude toward himself. A calm, intelligent, tactful secretary, or office assistant, has set the stage in many instances for a successful career; the wrong kind of personnel may contribute to the opposite result. The art of healing, after all, contains many elements of salesmanship, and upon the physician's assistant rests part of the responsibility for the successful consummation of the patient-physician relationship.

It is not our purpose here to try to create a pattern for an ideal secretary. A list of desirable qualifications might be enumerated, with which few would disagree. It is hoped, however, that this emphasis upon the value of good office help will suggest more careful attention to this important subject.

As a professional man, the physician is not likely to be "salesminded" and as a consequence he not infrequently selects his secretary with too little consideration of certain fundamental qualities. The truth of this statement is evident to anyone who has occasion to visit a large number of offices employing secretaries.

This is the ninth of a series of articles on "Office Problems of the Physician" which are being presented in Volume 35 of the Ohio State Medical Journal.

Mr. Mauck, author of the series, is Executive Secretary of the Columbus Academy of Medicine and Director of the Columbus Bureau of Medical Economics. Previously he operated a private professional management service for physicians.

CARE IN SELECTION DISREGARDED

The situation is easily understood when it is known how carelessly physicians select their secretaries. Too frequently the aim is to find some girl who will work for a wage that precludes selection of the type of girl he should have. As a group, secretaries are very poorly paid; consequently, doctors' offices frequently are very poorly served. But the crime of it all is that the physician fails to realize how vulnerable he has made himself by this false economy. Not only has he missed the opportunity to capitalize on his secretary as an ambassador of goodwill and friendly patient relations, but on the economic side, also, he has short-changed himself.

In preceding chapters we have discussed the business shortcomings of the average professional office, with remedial suggestions. We have had no aim of making over the physician into a good business man, for the practice of medicine is his chief function. We do plead, however, for recognition of the fact that the employment of a cheap, inefficient, poorly qualified secretary is no way to offset the natural business handicap of the physician.

STANDARDS TOO LOW

Many of the same traits that make the secretary a good receptionist and contact person will also give the physician efficient and careful handling of his accounts receivable—initiative, tact, intelligence, system, resourcefulness, etc. But not often is it possible to secure the proper combination of these qualities in girls that can be employed for what the physician is likely to want

to pay. If the standards for office assistants were raised, there would be less justification for the charge of poor business procedure in professional offices. The physician's secretary should offset and correct his own business shortcomings; and at the same time she should contribute that pleasant, friendly atmosphere to the physician's office which so often is related to building and holding a successful practice.

IMPRESSION ON THE PATIENT

The patient quite likely will receive the first impression of the physician through the secretary, either by personal visit to the office or by telephone. Subsequent contacts may be more frequent with the secretary than with the physician. It is only natural, therefore, that the receptionist or secretary has a very definite responsibility for determining the patient's reaction to the professional office. A popular physician may overcome the handicap of a grouch or an inconsiderate, unsympathetic secretary, but it is only the part of good judgment to select a secretary who will be an asset rather than a liability in her relations with his patients.

The duties of the secretary are too numerous and too varied to discuss here in detail. We shall mention only a few. They differ greatly as to the type of practice, volume of practice, division of the work with other assistants, size of the city or town, etc. Each physician has to determine for himself whether or not he has his own problem efficiently handled.

SOME OF HER DUTIES

Among the secretary's duties, however, we would like to emphasize the importance of telephone calls. Many patients have been repelled or drawn to the physician's office as a result of the initial telephone conversation. A pleasing telephone personality is a great asset in any physician's office. Complete information about the party calling, the nature of the inquiry and its importance with reference to immediate action by the physician can be easily elicited if the calls are diplomatically handled. When the physician is out, the secretary can calm the impatience and disappointment of the patient by tactful advice as to when the physician will be available or under what circumstances he might be reached. A helpful, cooperative attitude may result in a definite appointment at a convenient later time and give the patient a satisfactory reaction, even though his immediate expectations for seeing the physician could not be gratified. There is nothing more irritating to an ill and suffering patient who calls with reference to prospective relief at the hands of the physician than to be told by a brusk voice at the other end of the telephone simply that "Dr. Blank is not in" or "The doctor does not have office hours today". There are more tactful ways of conveying negative information.

System and order in the physician's office should also be the aim of every secretary. The physician himself may not possess these qualifications and it should be the secretary's duty to supplement the qualities which the physician lacks. Books, journals and correspondence are likely to be piled hodge-podge on the physician's desk and tables unless the secretary produces order out of chaos. Especially should she observe a neat, orderly arrangement of the waiting room and in general provide smooth management and efficiency in the operation of the physician's office.

It is especially important that the secretary arrange her work so as to be free during office hours to devote her time to her function as a receptionist to the arriving patients, giving cheerful and courteous consideration to their interests. Noise, confusion, loud talk and unnecessary personal discussions should be avoided. When unexpected delays are involved the patients should be advised of the situation with the proper explanation and not kept waiting indefinitely for an opportunity to see the physician. If consideration is extended under these circumstances the patient will be much less apt to feel that he has been unfairly treated.

FINESSE IN APPOINTMENTS

The proper handling of patients with reference to appointments requires finesse and tact. There is nothing more disconcerting to the ego of the average patient than to find that no regard is given to his previous arrangements for a specific time at which he can see the physician. It is essential that patients who arrive under previous appointments are not left waiting in the reception room to take their turn in relation to the other patients who have arrived at an earlier time, but without appointments. In handling these appointments it is necessary, however, to exercise precautions that other waiting patients are not offended or given the impression of favoritism when the late arrivals are ushered into the physician's private office ahead of the others. This situation can be diplomatically handled by an announcement to the effect "Mr. Jones, your appointment was at two o'clock and the doctor is ready to see you now", or other similar enlightening statements.

MUST ACT AS BUFFER

Another duty of any good secretary is that of protecting the physician from unnecessary interviews and sales solicitations. She must learn to discriminate between those who should and those who should not see the physician. A great deal of tact and resourcefulness must be displayed in handling the traffic through the physician's office so that it is routed carefully and without offense. Regardless of the reason for the call, all visitors must be treated courteously,

whether patients or not, and they should be sent away with a favorable reaction, even though the object of their call has been denied.

These are only a few of the duties which will be satisfactorily performed by an alert, intelligent secretary. Their importance should be self-evident, but unfortunately even these fundamental considerations are not always observed. The routine and specific duties of the physician's secretary will be determined by the requirements of each individual office. The physician, however, must recognize the importance to be attached to the position of his office assistant. If he does not regard it as a valuable association, naturally he will not select his secretary with regard to the qualifications which are really needed. The position of secretary in a physician's office is in itself a professional job. That the standards for office assistants have not been higher is due to the fact that physicians have not grasped the full importance that should attach to these positions.

We have tried here to stimulate more thoughtful consideration of the secretary's position, and to emphasize the fact that the right kind of secretary is a distinct asset to the professional man, both from the standpoint of building and holding his practice by the goodwill which she is capable of developing between the physician and patient and also by reason of the fact that a competent and qualified secretary can protect the valuable dollars-and-cents assets of the physician's practice. A mere "office girl" may cost little from the standpoint of her weekly wage, but actually she may cost the physician plenty through her shortcomings in dealing with the patients and in her lack of knowledge about handling physician's accounts. Our final recommendation with reference to the secretarial problem is, 1st, recognize the value of a good secretary; 2nd, pay the salary necessary to have one.

The concluding article in this series will appear in the December *Journal*.

Fall Meeting of Eighth District Is Held at Lancaster, Oct. 19

Physicians from nine South-Central Ohio counties gathered at the Lancaster Country Club, Thursday, October 19, for the annual Fall Meeting of the Eighth Councilor District of the Ohio State Medical Association. After a luncheon, the following program was presented: "Fractures of the Shoulder", by Dr. E. Harlan Wilson, Columbus; "Medical Economics", by Charles S. Nelson, Columbus, Executive Secretary, Ohio State Medical Association; "Dermatitis and Eczema from the General Practitioner's Standpoint", by Dr. James R. Driver, Cleveland. The meeting was in charge of the district officers: Dr. Carl W. Brown and Dr. L. E. Stenger, Lancaster, president and secretary, respectively, and Dr. George F. Swan, Cambridge, Councilor for the Eighth District.

Next Medical Board Examinations To Be Given in Columbus, Dec. 5, 6 and 7

Mid-winter examinations of the State Medical Board will be held on December 5, 6 and 7, the Board decided at a meeting in Columbus October 3. Written examinations will be given at the Deshler-Wallick Hotel and the practical examinations at University Hospital, Columbus.

The meeting was attended by the following members of the Board: Dr. L. T. Franklin, Chillicothe, president; Dr. J. H. J. Upham, Columbus, vice-president; Dr. Lee Humphrey, Malta, treasurer; Dr. R. C. Hunter, Wapakoneta; Dr. C. W. Waggoner, Toledo; Dr. W. M. Hoyt, Hillsboro, and Dr. H. M. Platter, secretary. Dr. Carl W. Dewey, Conneaut, was absent because of illness. The license to practice medicine and surgery in Ohio of Dr. H. C. McQuillen, formerly of Toledo, now a resident of Wisconsin, was revoked because of conviction of a felony in Wisconsin.

Licenses to practice medicine and surgery in Ohio were granted to the following physicians, through reciprocity with other states: Dr. Sylvester F. Crynes, Springfield, University of Oregon; Dr. Sidney L. Davidow, Youngstown, University of Michigan; Dr. Helen L. T. Dexter, Cincinnati, Columbia University College of Physicians and Surgeons; Dr. Kurt J. Fleisch, Newark, University of Rome; Dr. Filip C. Forsbeck, Cincinnati, University of Chicago; Dr. Paul H. Hilbert, Cincinnati, St. Louis University; Dr. Howard J. Ickes, Canton, Johns Hopkins University; Dr. Samuel Kossak, Campbell, University of Lausanne; Dr. Claude M. Lee, Jr., Cincinnati, University of Virginia; Dr. Elmer McGraw, Toronto, Medical College of Virginia; Dr. Grace E. McLean, Cleveland, Long Island College of Medicine; Dr. Clarence W. McNamara, Toledo, St. Louis University; Dr. Wallace Morton, Toledo, Marquette University; Dr. Arthur S. Parker, Jr., Youngstown, Georgetown Medical School; Dr. Arthur A. Parks, Steubenville, Western Pennsylvania Medical College; Dr. Willis S. Peck, Toledo, Syracuse University; Dr. Margaret A. Pennington, Marion, Medical College of Virginia; Dr. Reed C. Prugh, Dayton, University of Michigan; Dr. Raymond H. Quade, Toledo, Northwestern University; Dr. Wilbur P. Rickert, Kenton, University of Pennsylvania; Dr. Norman O. Rothermich, Columbus, St. Louis University; Dr. Edward J. Ryan, Cleveland, University of Kansas; Dr. George E. Schnug, Cincinnati, University of Iowa; Dr. Robert C. Tisherman, Marietta, Jefferson Medical College; Dr. Howard S. Van Ordstrand, Cleveland, University of Kansas; Dr. Edw. B. Weinman, Steubenville, University of Michigan; Dr. Richard W. Weiser, Mariemont, University of Pennsylvania.

Youngstown—Dr. and Mrs. R. D. Gibson recently observed their 54th wedding anniversary.

In Memoriam

James Edward Francis Cogan, M.D., Cleveland; Jefferson Medical College, Philadelphia, 1897; aged 68; former member of the Ohio State Medical Association; former Fellow of the American Medical Association and the American College of Surgeons; died September 23. A native of Canada, Dr. Cogan came to this country in 1892 and established an office in Cleveland in 1902. From 1910 to 1913 he was a member of the City Board of Health. Dr. Cogan was a member of the Catholic Church and the Knights of Columbus. His widow, a daughter, a son, a sister and a brother survive.

Joseph B. Cowen, M.D., Hamilton; Medical College of Ohio, Cincinnati, 1897; aged 63; died October 2. After several years' practice in Oxford and New York City, Dr. Cowen located in Hamilton and continued there for 27 years. He was a member of the Catholic Church and the B.P.O.E. Surviving are his widow, a son, two sisters and two brothers.

John C. Elsbree, M.D., Delaware; Columbus Medical College, 1889; aged 73; died September 18. He had been a postal clerk in the railway mail service for 20 years. His widow, two sons and a brother survive.

Norman Geer, M.D., Cleveland; Columbus Medical College, 1890; aged 76; died October 3. Dr. Geer retired in 1928 after many years' practice in Cleveland. He was a member of the Episcopal Church and the I.O.O.F. His widow, a son and a sister survive.

Charles A. Haefner, M.D., Youngstown; Central College of Physicians and Surgeons, 1905; aged 65; died October 10. Dr. Haefner had practiced in Youngstown since 1929. He was formerly located in Kinsman and Andover. Dr. Haefner was a member of the B.P.O.E. His widow, two sisters and a brother survive.

Wilbert Arthur Hobbs, M.D., East Liverpool; University of Michigan Medical School, 1884; aged 77; member of the Ohio State Medical Association; Fellow of the American Medical Association and the American College of Surgeons; died Oct. 17. Dr. Hobbs practiced medicine for more than 50 years. Only last Spring, he attended the 55th reunion of his graduating class at Ann Arbor. Prominent in his profession and in the Columbiana County Medical Society, Dr. Hobbs was also active in civic affairs, having served as president of the local Kiwanis Club and on the Board of Trustees of the Presbyterian Church. During the Spanish-American War, he was surgeon for Company E, Eighth Ohio Infantry. Dr. Hobbs was a member of various Masonic orders. Surviving are his widow and two daughters.

Mary Roush Krieger, M.D., Cincinnati; American Eclectic Medical College, Cincinnati, 1891; aged 91; died September 14. Dr. Krieger began practice with her husband, the late Dr. Wilhelm Krieger, in Cincinnati in 1890, and continued until their retirement in 1930.

Fred Burton Larimore, M.D., New Philadelphia; Starling Medical College, Columbus, 1903; aged 61; former member of the Ohio State Medical Association and the American Medical Association; died October 15. Dr. Larimore began the practice of medicine in Port Washington in 1903, moving to New Philadelphia in 1912, continuing in practice there until his retirement in 1937 because of ill health. He was a member of the Masonic Order and the Presbyterian Church. His widow, a daughter, a son, four sisters and four brothers survive.

Harry Alonzo Lewis, M.D., Continental; Toledo Medical College, 1896; aged 80; member of the Ohio State Medical Association and the American Medical Association; died October 7. Dr. Lewis practiced in Continental for 43 years. He was vice-president of the Putnam County Medical Society in 1922, and was mayor of his community for two years. Dr. Lewis was a member of the Masonic Order for 58 years. In respect to his memory all business places in Continental closed on the afternoon of his funeral. A daughter and a son survive.

James Benham Lucas, M.D., West Alexandria; University College of Medicine, Richmond, Va., 1899; aged 63; member of the Ohio State Medical Association and the American Medical Association; died September 22. Dr. Lucas practiced in W. Va., until 1914, when he located in West Alexandria. He had served as president, legislative committeeman and medical defense committeeman of the Preble County Medical Society. Active in community affairs, he was president of the board of education for 10 years. Dr. Lucas was a Mason. Surviving are his widow, a daughter and two sons.

Benjamin F. Lyle, M.D., Cincinnati; Medical College of Ohio, Cincinnati, 1882; aged 78; former member of the Ohio State Medical Association and the American Medical Association; died September 9. Dr. Lyle practiced in Cincinnati for over 50 years. He was one of the founders of Branch Hospital, now the Hamilton County Tuberculosis Sanitorium. He was formerly a member of the local Board of Education and an active Mason.

Surviving are his widow, and two sons and a daughter, Dr. Alice F. Lyle, Dr. Donald J. and Dr. Herbert P. Lyle, Cincinnati physicians.

John McKelvy, M.D., Chatham; College of Physicians and Surgeons, Baltimore, M.D., 1880; aged 82; died September 18. Dr. McKelvy retired 20 years ago, after having practiced in Chatham and vicinity for 35 years. He was a member of the Methodist Church. Surviving are his widow, a daughter, a sister and a brother.

Burton Roy Miller, M.D., Tiffin; Ohio Medical University, Columbus, 1897; aged 75; member of the Ohio State Medical Association and the American Medical Association; died September 16. Prior to entering the practice of medicine in New Washington in 1897, Dr. Miller was a school teacher for eight years. He had practiced in Tiffin for nearly 40 years. Dr. Miller formerly wrote extensively for medical publications and for several years was assistant editor of "The Medical World." He served in the Spanish-American War and held a commission in the Reserve Corps of the U. S. Army. Dr. Miller was coroner of Seneca County in 1915 and 1916. He was a member of the Knights of Pythias, the Court of Honor and the Reformed Church. His widow survives.

Murray Emerson Reeder, M.D., Columbus; Ohio State University College of Medicine, Columbus, 1910; aged 53; member of the Ohio State Medical Association and the American Medical Association; died September 16. Dr. Reeder had practiced in Columbus since 1916. Prior to that time he was located in Ohio City and Van Wert. During the World War Dr. Reeder served in the Medical Corps of the U. S. Army. He was a Mason. Surviving are his widow, a daughter, his father, three sisters and a brother.

Robert Q. Rowse, M.D., Sioux City, Iowa; Medical College of Ohio, Cincinnati, 1893; aged 69; member of the Iowa State Medical Society; Fellow of the American Medical Association and the American College of Surgeons; died October 4. A native of Wyandot County and former resident of Bucyrus, Dr. Rowse had practiced in Sioux City for 35 years. He was a past president of the Iowa Surgical Society.

Morris Schaner, M.D., Toledo; University of Cincinnati College of Medicine, 1916; aged 50; member of the Ohio State Medical Association and the American Medical Association; died September 28. Dr. Schaner practiced in Toledo for more than 20 years. He was a member of the B'nai B'rith and the Zionist organization. Surviving are his widow, a daughter, a son and his mother.

Robert H. Trimble, M.D., Mt. Sterling; Starling Medical College, Columbus, 1894; aged 69; member of the Ohio State Medical Association and the American Medical Association; died October 18. Dr. Trimble practiced medicine in Mt. Sterling for almost 45 years, and for the last 18 years was health commissioner of Madison County. An active member of the Madison County Medical Society, Dr. Trimble had served as president, delegate to the Ohio State Medical Association and legislative committeeman. Dr. Trimble was also a leader in civic affairs and in fraternal circles. He was president of the local board of education for 20 years and was mayor of Mt. Sterling for three terms. Dr. Trimble was a member of the Masonic Order, Eastern Star, Rotary Club, Modern Woodmen of the World, and the Knights of Pythias. His widow, four sons, three sisters and a brother survive.

George J. Waggoner, M.D., Ravenna; New York University Medical College, N.Y., 1890; aged 74; member of the Ohio State Medical Association and the American Medical Association; died Oct. 7. Dr. Waggoner, chief of staff of Robinson Memorial Hospital, practiced medicine in Ravenna for 49 years. He was a past president of the Portage County Medical Society, and was legislative committeeman from 1926 to 1938. For 12 years he was a member of the Portage county board of elections. He had also served on the city board of health and the city sinking fund board. Dr. Waggoner was a past master of the Masonic Lodge and past exalted ruler of the local Elks' Lodge. Surviving are his widow, a daughter and two sons.

Ohioans Elected to Fellowship

Among the 496 physicians elected to fellowship in the American College of Surgeons at its meeting in Philadelphia, October 16-20, were the following Ohioans: Dr. Harold P. Shapiro, Dr. Eugene A. Ockuly, Dr. Robert B. Tucker, Dr. Robert F. Heatley and Dr. Thomas F. Heatley, Toledo; Dr. Brack M. Bowman, Youngstown; Dr. David A. Chambers, Dr. Victor C. Laughlin, Dr. J. Henry Lazzari, Dr. Homer D. Roads, Dr. William E. Smith, Dr. Dwight S. Spreng and Dr. Howard P. Taylor, Cleveland; Dr. John A. Fraser, East Liverpool; Dr. Perry R. Longaker, Conneaut; Dr. Kenneth F. Lowry, Troy; Dr. Eugene F. Pfanner, Dayton; Dr. Walter A. Reese, Middletown; Dr. Reginald S. Rilling, Findlay; Dr. Richard H. Wilson, Martins Ferry.

Dr. Ockuly received honorable mention in a contest for the best surgical history.

Youngstown Lecture Program

Another successful Fall lecture program was presented by the Mahoning County Medical Society, Monday, Tuesday and Wednesday, October 9, 10 and 11, at the Ohio Hotel, Youngstown. The speaker was Dr. Charles F. Geschickter, Johns Hopkins Hospital, Baltimore, Md. He gave six lectures on lesions of the skin and oral cavity, bone, soft parts, gastro-intestinal tract, thoracic cavity and breast.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

ADAMS

An all-day session of the Adams County Medical Society was held at the Court House, West Union, Wednesday, October 18. Dr. S. J. Ellison, West Union, opened the program at 10:30 A.M., with his report as legislative committeeman. Dr. W. T. LaNeave, Peebles, spoke on "Fractures of the Extremities". The discussant was Dr. W. L. Faul, Jr., Georgetown. Dr. J. E. Pirrung, Cincinnati, gave an address on "Fractures of the Upper Third of the Femur". Members of the society were entertained by their West Union colleagues during the noon hour. In the afternoon, Dr. R. C. Wenrick, Winchester, discussed Dr. Pirrung's paper. The Farm Security Administration medical program was explained by Albert E. Beardsley, West Union.—O. T. Sproull, M.D., secretary.

BUTLER

A meeting of the Butler County Medical Socity, Thursday evening, September 28, at Mercy Hospital, Hamilton, was attended by 22 members and four guests. The subject of medical relief in the county and cities was discussed by Hamilton's City Manager, Russell P. Price, and Paul A. Baden, Butler County Prosecutor.—Vera Coombs Iber, M.D., secretary.

CLINTON

Fourteen members of the Clinton County Medical Society were present at a luncheon meeting of the society, Tuesday, October 10, at the General Denver Hotel, Wilmington. The anatomy of the spinal column was discussed by Dr. Frank A. Peelle, and Dr. Robert Conrad spoke on the common pathological conditions of the spinal column.—News clipping.

HAMILTON

The following programs were presented by the Academy of Medicine of Cincinnati during October:

October 3—"The Death Instinct", by Dr. Karl Menninger, chief of staff, Menninger Clinic, Topeka, Kansas.

October 10—Hospital Night at Longview Hospital. Case reports by the following staff members: Dr. Maynard Murray, Dr. F. Marion Stephens, Dr. Douglas Goldman, Dr. Norman Schkloven, Dr. Esther B. Tietz. Motion pictures of therapeutic procedures.

October 17—"Treatment of Wounds", by Dr. Mont R. Reid, Cincinnati. "My Experience With Wounds in Industry: (1) When Doing the Work; (2) When Judging Others' Work", Sidney McCurdy, Columbus, supervisor, Medical Section, State Industrial Commission.

October 24—Program arranged and presented by the Cincinnati Board of Health on the general theme of "The Public Health". "The Tuberculosis Problem in Cincinnati", by Dr. Herman Nimitz, tuberculosis co-ordinator for Cincinnati and Hamilton County; "Heart Disease in the Indigent School Child", by Dr. Bernard Schwartz, chief, Heart Disease Clinic, Cincinnati Board of Health; "How the Public Health Nurse Can Assist the Doctor in Private Practice", by Mrs. Louise K. Tooker, R.N., superintendent, Public Health Nursing; "New Factors in the Prevention of Pneumonia", by Dr. Marion A. Blankenhorn, director, Department of Internal Medicine, University of Cincinnati College of Medicine; "A Report on the Syphilis Control Program", by Dr. Carl A. Wilzbach, commissioner of health, Cincinnati.

October 31—"Causes and Prevention of Malpractice Suits", by Phil J. Schneider, L.L.B., Cincinnati.—Bulletin.

WARREN

Dr. Frank C. O'Neill, Middletown, spoke on "Heart Disease in Children", at a meeting of the Warren County Medical Society, at the Town Hall, Lebanon, Tuesday afternoon, October 3.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

CLARK

Twenty-five members attended a business meeting of the Clark County Medical Society, Thursday noon, October 12. Dr. Benetta D. Titlow was made a life member of the society. Plans were discussed for a testimonial dinner in her honor. The society whole-heartedly endorsed the one-mill levy asked by the city commission for hospitalization of the indigent sick. Dr. C. E. M. Finney, president, announced that he would appoint a committee to collect funds for the memorial to Dr. John Hole.—G. M. Lane, M.D., secretary.

DARKE

"Heart Failure", was the subject discussed by Dr. Clifford J. Straehley, Cincinnati, at a dinner meeting of the Darke County Medical Society, Friday, October 20, at Greenville.—W. D. Bishop, M.D., secretary.

GREENE

At a meeting of the Greene County Medical Society, Thursday, October 5, at Xenia, Dr. Ben C. Houghton of the medical and surgical research department of Ohio State University College of

METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

II. Determination of Ascorbic Acid

● The first practical method for quantitative estimation of vitamin C in foods was that evolved by Sherman and his associates in 1922 (1).

In this technique selected guinea pigs were confined to a scurvy producing ration supplemented with green succulent vegetables—a source of vitamin C—for a suitable period to demonstrate that the animals were growing at a normal rate. The supplementary feeding of succulent vegetables was discontinued when the animals had attained the proper weight, and the feeding of graded daily doses of the material under assay begun and continued over a 90-day period. At the end of this period, the animals were sacrificed and the degree of protection against pathologic changes characteristic of scurvy provided by the various dosages then was determined by dissection and examination of the organs and tissues. The quantity (daily dose) of the food required to prevent incidence of scurvy symptoms—the protective dose—eventually became known as the "Sherman Unit" for vitamin C, or the "minimum protective dose."

This bioassay technique underwent gradual improvement, both as to the basal ration (2) and as to a numerical system of evaluating and recording the severity of the scurvy symptoms; the so-called "scurvy score" (3). Methods employing shorter assay periods, such as the formal preventive type of assay with a 60-day assay period (4), or a method based upon histologic examination of the teeth (5), as well as curative techniques (6), have been proposed and used for the determination of vitamin C activity of foods. However, today the improved Sherman bioassay technique employing ascorbic acid as a standard of reference and a relatively long assay period is still regarded as the standard method for vitamin C determination (7).

Some six years ago, a chemical method for ascorbic acid estimation was proposed (8, 9) and immediately came into widespread use. Judiciously and circumspectly used, this method has proven a most valuable tool. By acid extraction of a known quantity of food followed by removal of certain proximate food components, ascorbic acid present in the extract may be quantitatively titrated by a standard solution of 2,6-dichlorophenolindophenol. Under proper conditions this reagent is quantitatively reduced by ascorbic acid to a colorless compound. A faint pink color in the acid solution produced by one excess drop of the reagent indicates the completion of the oxidation-reduction titration.

Development of this chemical method has stimulated many researches on the ascorbic acid contents of foods, among them many canned foods (10). Results of investigations by the chemical or bioassay technique (11) reveal that the canned varieties of foods notable for their natural ascorbic acid contents can also be numbered among the most valuable sources of this dietary essential available to the American Consumer.

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(1) 1922. J. Am. Chem. Soc. 44, 165.
(2) 1929. Am. J. Pub. Health 19, 1309.
(3) 1926. A Study of the Thermostability of Vitamin C. C. L. Kenny, Dissertation, Columbia University, New York.
(4) 1930. J. Agr. Research 41, 51.
1931. J. Agr. Research 42, 35.
(5) 1926. Brit. J. Exper. Path. 7, 356.
(6) 1933. Biochem. J. 27, 2006.
1936. Food Research 1, 3.
(7) 1938. J. Am. Med. Assoc. 111, 1290.
(8) 1933. Ztschr. f. Untersuch. d. Lebensmitt. 65, 145.
(9) 1933. J. Biol. Chem. 103, 687.
(10) 1937. U. S. Dept. Agr. Miscellaneous Publication No. 275, 104.
(11) 1922. J. Am. Chem. Soc. 44, 172.
1925. Ind. Eng. Chem. 17, 69.
1926. Ibid 18, 85.
1930. J. Home Econ. 22, 588.
1935. Am. J. Pub. Health 25, 1340.
1938. J. Am. Med. Assoc. 110, 650.
1938. Ibid. 111, 2138.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the fifty-third in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.

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Medicine, presented an interesting and instructive paper on "Clinical Avitaminosis in the Adult".—Donald F. Kyle, M.D., secretary.

MIAMI

Wives of members were guests at a meeting of the Miami County Medical Society, Friday, October 6, at the Troy Country Club. The speaker was Dr. Alex T. Bunts, Cleveland, who discussed "Low Back Pain and Sciatica in Relation to Procrusions of the Intervertrebral Discs". —G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. John A. Toomey, of the Department of Contagious Diseases, City Hospital, Cleveland, spoke on "Differential Diagnosis of Various Forms of Meningeal Irritations", at a meeting of the Montgomery County Medical Society, Friday evening, October 20, in the auditorium of the Fidelity Medical Building, Dayton.—Mildred E. Jeffrey, executive secretary.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

AUGLAIZE

"Diagnosis and Treatment of Tuberculosis", was the subject presented by Dr. E. W. Laboe, new superintendent of the District Tuberculosis Hospital, Lima, at a meeting of the Auglaize County Medical Society, Thursday evening, October 19, in the County Commissioner's Room at the Court House, Wapakoneta.—Chas. C. Berlin, M.D., secretary.

HARDIN

Paul F. Dickey, county supervisor for the Farm Security Administration, was the speaker at a dinner meeting of the Hardin County Medical Society, Thursday, September 21, at Kenton. —News slipping.

MARION

At a meeting of the Marion Academy of Medicine, Tuesday night, October 10, at Marion City Hospital, Dr. Carl E. Zeithaml, Cleveland, senior clinical instructor in pediatrics at Western Reserve University School of Medicine, spoke on "Endocrine Disorders in Children".—News clipping.

Fourth District

(COUNCILOR: E. J. McCORMICK, M.D., TOLEDO)

DEFIANCE

At the regular luncheon meeting of the Defiance County Medical Society at the Bradford Restaurant, Defiance, Friday, October 13, it was decided to recommend to the city and county boards of education that vaccination of all pupils be compulsory. The program includes requesting the city and county boards of health to furnish vaccine points. Those unable to pay would be vaccinated free of charge. School authorities would be asked to make a survey of the number of children needing this protection. The secretary was authorized to furnish a series of articles to the local newspaper relative to this program. The importance of the prophylactic treatment of diphtheria will also be stressed.—E. P. Mitchell, M.D., secretary.

LUCAS

The following programs were presented by The Toledo Academy of Medicine during October:

October 6—Symposium on "Toledo's School Health Problems", by Dr. Theodore Zbinden and the staff of school physicians.

October 13—"Granuloma From Foreign Body Irritants", by Dr. T. L. Ramsey.

October 20—"Recent Advances Concerning Internal Secretions", by Dr. Joseph T. Aub, associate professor of medicine, Harvard University Medical School, Boston, Mass.

October 27—"Carcinoma at the Recto-Sigmoid Juncture", by Dr. T. E. Jones, Cleveland.—Bulletin.

SANDUSKY

Dr. W. W. Green, Toledo, spoke on "The Diagnosis and Treatment of the Common Anorectal Diseases", at a meeting of the Sandusky County Medical Society, Thursday evening, September 21, at Fremont.—News clipping.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during October:

October 4—Obstetrical and Gynecological Section. "Obstetrical and Gynecological Anesthesia from the Standpoint of the Surgeon", by Dr. Wm. D. Fullerton; "Obstetrical and Gynecological Anesthesia from the Standpoint of the Anesthetist", by Dr. R. J. Whitacre.

October 6—Clinical and Pathological Section. Radiographic Observations in Nine Cases of Monostotic Paget's Disease", by Dr. Jean A. Groh; "Juvenile Hypertension and Renal Failure: A Case Report with Clinical and Autopsy Findings", by Dr. John F. Linden.

October 11—Medical Practice Section. "Sulfapyridine in Pneumococcal Pneumonia", by Dr. Robert F. Parker; "Chemotherapy in Contagious Disease", by Dr. J. A. Toomey.

October 13—Joint meeting of the Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Cardio-Inhibitory and Vasomotor Reflexes from the Nose and Throat", by A. S. Harris, Ph.D.;

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October 25—Pediatric Section. "Nephritis Following Scarlet Fever", by Dr. F. E. Roach; "Muscular Dystrophy", by Dr. P. C. Crone; "Hemiplegia Following Whooping Cough", by Dr. J. W. Haines; "Aplastic Anemia", by Dr. J. Lazoya; "Non-Hemolytic Streptococcic Meningitis", by Dr. J. A. Toomey; "An Unusual Lung Infiltration", by Dr. J. D. Pilcher; "Typhoid Fever", by Dr. O. L. Goehle; "Observations on Diagnosis of Appendicitis", by Dr. C. W. Burhams.

October 25—Industrial Medicine and Orthopedic Section. "Necrosis of the Head of the Femur Following Fracture and Traumatic Dislocation", by Dr. C. H. Heyman; "Tibia Varum with Presentation of Cases", by Dr. G. Glen Barber; "Technical Problems in Hip Fractures", by Dr. W. H. McGaw; "Results of Early Weight-Bearing After Nailing of Fractured Femoral Necks", by Dr. Donald A. Kelly; "Presentation of Cases", by Dr. John Murphy; "Recent Advances in Control of Industrial Exposure", by Dr. E. A. Irvin.—Bulletin.

Sixth District

(COUNCILOR: R. L. RUTLDEGE, M.D., ALLIANCE)

COLUMBIANA

Dr. R. T. Holzbach, Salem, related his recent experiences in Europe at a meeting of the Columbiana County Medical Society, Tuesday evening, September 19, at the Legion Hall, Lisbon.

Dr. John M. Johnson, Mercy Hospital, Pittsburgh, spoke on "Treatment of Pneumonia", with emphasis and discussion of the use of sulfapyridine and hydroxethylapocuprein. Council activities were discussed by Dr. Ralph L. Rutledge, Alliance, Councilor for the Sixth District. Lunch was served at the conclusion of the meeting.—J. W. Schoolnic, M.D., secretary.

MAHONING

The Mahoning County Medical Society held its annual picnic Thursday, September 14, at the Millikin Farm. There was quite a turn-out to enjoy the roast corn and baked clams.

Dr. Louis H. Mewburgh, professor of clinical investigation and internal medicine, University of Michigan Medical School, Ann Arbor, spoke on "Metabolism" at a meeting of the society, Tuesday, October 17, at the Youngstown Club.—C. A. Gustafson, M.D., correspondent for *The Journal*.

PORTAGE

A meeting of the Portage County Medical Society was held Thursday evening, October 5, at the office of Dr. A. J. Silbiger, Atwater. The guest speaker was Dr. William H. Bunn, Youngstown, who discussed "The Treatment of Coronary Occlusion". Dr. R. L. Rutledge, Alliance, Sixth District Councilor, spoke on organization activities.—E. J. Widdecombe, M.D., secretary.

STARK

Approximately 300 physicians attended the Second Annual Postgraduate Day of the Stark County Medical Society, Wednesday, October 11, at the Courtland Hotel, Canton. The scientific program was presented by Dr. George P. Muller, Dr. Martin E. Rehfuss, Dr. Hobart A. Reimann and Dr. Brooke M. Anspach, members of the faculty of Jefferson Medical College, Philadelphia. At the dinner session, Charles S. Nelson, Executive Secretary of the Ohio State Medical Association, explained the Bigelow amendments to be voted on in Ohio November 7, and urged physicians to work and vote against them. An exhibit of newspaper clippings showing the large number of Ohio newspapers which are publishing the releases of the State Association's new Bureau of Public Education was shown by the director, Richard A. Aszling.

SUMMIT

A new constitution and by-laws was adopted by the Summit County Medical Society at its meeting on Tuesday evening, October 3, at the Mayflower Hotel, Akron. Dr. C. E. Held was chairman of the Committee on Revision of the Constitution.—Bulletin.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

GUERNSEY

Dr. John Wittenbrook, Columbus, a member of the staff of the Ohio State Hospital for the Insane, spoke on "Shock Treatment of Psychosis", at a luncheon meeting of the Guernsey County Medical Society, Thursday, September 21,

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MUSKINGUM

At a meeting of the Muskingum County Academy of Medicine, Wednesday evening, October 4, at the University Club, Zanesville, Dr. H. G. Schmidt, Columbus, representative of the Lederle Laboratories, discussed "The Treatment of Pneumonia", with special reference to the use of sulfapyridine.—Beatrice T. Hagen, M.D., secretary.

PERRY

"Chronic Middle Ear Disease", was the subject of an address made by Dr. R. S. Martin, Zanesville, at a meeting of the Perry County Medical Society, Thursday, September 21, at the Park Hotel, New Lexington.—News clipping.

WASHINGTON

A very interesting meeting of the Washington County Medical Society was held at the Wakefield Hotel, Marietta, Wednesday, September 6. A committee appointed to confer with the county commissioners on provisions for medical care under the new State Relief Act, reported a very unfavorable attitude on the part of the commissioners. Ways and means of formulating a plan were discussed at length.

Some time was devoted to the memory of the late Dr. S. A. Cunningham, who was one of the oldest and most active members of the society. Those present expressed regret at his loss not only to the Washington County Medical Society, but to the general public which he served so faithfully for many years.

Several interesting case reports were made by Dr. David E. Sauer and Dr. A. Howard Smith. A case of yellow atrophy of the liver and two cases of vaginal atresia were reported by Dr. Smith. A case of kraurosis of ten year's standing relieved by the use of theelin was also reported.—David E. Sauer, M.D., secretary.

Ninth District

(COUNCILOR: I. P. SEILER, M.D., PIKETON)

SCIOTO

Dr. F. E. Schmidt of the Lederle Laboratories, spoke on "Serum Treatment of Pneumonia", at a meeting of The Hempstead Academy of Medicine at General Hospital, Portsmouth, Monday evening, October 2.—W. M. Singleton, M.D., secretary.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

Dr. George P. Sims, Columbus, spoke on "X-Ray Treatment of Inflammatory Diseases", at a meeting of the Fayette County Medical Society, Thursday, October 12, at Washington C. H.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during October:

October 2—"Three Unusual Conditions of the Liver", a symposium by Dr. E. H. Chapin, Dr. T. N. Manos and Dr. R. S. Fidler.

October 16—"Diagnosis and Treatment of

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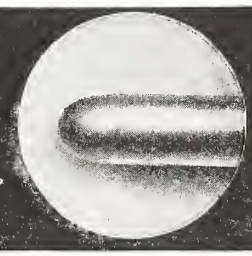
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Common Skin Diseases", by Dr. Maurice J. Costello, assistant clinical professor of dermatology and syphilology, New York University College of Medicine.

October 23—Section in General Medicine. The program was presented by members of the medical staff of the State Industrial Commission in Hearing Room No. 1, State Office Building. "X-Rays as Evidence of Injury", by Dr. Henry P. Worstell, assistant supervisor; "Non-Surgical Aspects of Industrial Surgery", by Dr. Maurice B. Rusoff; "The General Practitioner and the New Occupational Disease Law", by Dr. Sidney M. McCurdy, supervisor.—Bulletin.

MADISON

Dr. Russel G. Means, Columbus, addressed the Madison County Medical Society, Thursday noon, September 28, at London, on the subject, "Treatment of Otitis Media".

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

ASHLAND

The Ashland County Medical Society recently adopted a resolution expressing sincere regret at the retirement of Dr. O. J. Powell, after 41 years in active practice.—News clipping.

LORAIN

"Arthritis" was the subject discussed by Dr. Russell G. Haden, Cleveland, at a meeting of the Lorain County Medical Society, Tuesday afternoon, October 10, at the Hotel Antlers, Lorain.

MEDINA

Dr. T. L. Parry, Akron, spoke on "Acute Throat Infections" at a dinner meeting of the Medina County Medical Society, at the Evanon, Medina, Thursday, September 26.—News clipping.

State May Require Citizenship In Licensing Physicians, Court Rules

Citizenship may lawfully be required by the state of Texas of an applicant for a license to practice medicine, as a condition precedent to the issue of a license, in the opinion of the district court of Travis County, Texas, in a case brought by a citizen of Mexico (Garcia-Goday vs. State Board of Medical Examiners, Texas). Such a requirement was held not to deprive an alien of any right guaranteed him by the federal constitution. As far as available records show, this is the first time that a court has been called on to pass directly on this question. Under the provisions of the constitution a state cannot deny to an alien the right to follow a "common occupation" under the same conditions that it imposes on citizens. The practice of medicine,

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[1] "Twenty-five years of Health Progress"—Metropolitan Life Insurance Co., 1937; Pages 339-340.

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the Texas court observed, is not "a common occupation" but is a profession impressed in many instances with semi-official duties.

Physicians have duties in connection with many important matters relating to public welfare: duties in connection with governmental birth, sickness and death records; with the execution of certificates of inability of witnesses, or even of the defendant, to attend trial; with matters relating to communicable diseases and quarantine; with the execution of certificates of freedom from disease, required by law in connection with the issuance of marriage licenses, and with the enforcement of state and federal narcotic laws, and many other duties of similar nature. All these duties are imposed on physicians by the government in the furtherance of policies adopted by the state for the welfare of the people as a whole. A physician who is a citizen will be better able to cooperate with the state in carrying out its policies than a physician of foreign allegiance and training who is unfamiliar with the ideals and institutions of our country.

In epidemics, the court pointed out, the closest cooperation is required between the medical profession and various governmental agencies. The virtual end of epidemics of many diseases, such as cholera and smallpox, has resulted from the close partnership that has been maintained between the practicing physicians and administrative agencies of the state and federal governments. For the preservation of gains that have been made and in the furtherance of similar objectives, the court thought that the legislature had a perfect right to declare it to be of utmost importance that the practice of medicine be limited to citizens. Again, in time of war the services of physicians constitute a necessary and most important link in our fighting forces; the court thought that physicians who had not signified a belief in the fundamental ideals of this country would be in a position to exert a subversive influence tending to undermine and destroy those ideals and to thwart the attainment of the objectives for which we might be fighting. For these and other reasons the court felt that it was within the police power of the state to deny to aliens the right to practice medicine to the end that public health, safety and morals might be furthered and preserved.

The court, incidentally, expressed great difficulty in understanding why Texas had ever permitted examinations for medical licensure to be conducted in any language other than English, believing a thorough knowledge of our language to be of prime importance to a physician if he is fully to understand the information imparted by a patient and if he is adequately to give instructions to that patient.—*The Journal of the American Medical Association, Oct. 14, 1939.*

Openings In Federal Services

The United States Civil Service Commission has announced open competitive examinations for the posts of senior medical officer and associate medical officer in various Federal agencies. Salaries are $4,600, $3,800 and $3,200 respectively, subject to a 3½ per cent deduction for retirement allowance, and further deductions for quarters and subsistence when furnished. Positions are available in the Public Health Service, Veterans' Administration, Civil Aeronautics Authority and the Indian Service. Applications must be on file with the United States Civil Service Commission, Washington, D.C., not later than November 13. The necessary application forms may be obtained from the secretary, Board of United States Civil Service Examiners, at any first-class post office, from the U. S. Civil Service Commission, Washington, D.C., or from any Civil Service District office, one of which is located in the Federal Building, Cincinnati.

Cincinnati—The importance of medical inspection in the public schools was stressed by Dr. E. H. Schoenling, Hamilton County health commissioner, at a Teachers' Institute held recently at the University of Cincinnati.

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Interesting Study of Claims Filed With Industrial Commission Made

The State Industrial Commission has published a statistical study, prepared by the Division of Safety and Hygiene, of the 166,925 accident and occupational disease claims filed with the Commission during 1938, with a summary of the years 1929-1938 inclusive.

The report shows that the relative positions of types of industrial injuries show very little variation from year to year. As heretofore, cuts and lacerations furnished the basis for more injury claims in 1938 than any other form of injury. Claims arising from this type of injury numbered 68,319. Crushes and bruises were second in frequency with 29,215 cases. Sprains and strains gave rise to 23,116 claims; puncture wounds, 21,022; fractures, 9,757; burns and scalds, 10,601; dislocations, 553; traumatic amputations, 553; concussions, 159; asphyxiations, 118; drownings, 8, and unclassified, 3,520.

Claims for 42,928 finger injuries were filed during 1938. Eye injuries were second with 29,485 cases; the trunk, 23,395; legs, 16,983; arms, 16,532; hands, 13,279; head and face, 10,465; feet, 8,258, and toes, 5,600.

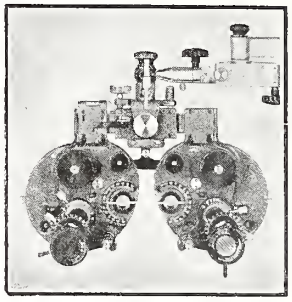
Included in the 9,757 fractures reported in the claims for compensation were 1,954 of fingers; 1,861 of toes; 1,266 of arms; 1,253 of ribs; 960 of legs; 868 of feet; 358 of hands; 236 of the skull; 260 of the teeth; 215 of the vertebrae; 143 of the nose; 128 of the pelvis and 74 of the jaw.

Exams for Navy Medical Corps

An examination for commission and for appointment as intern in the Medical Corps of the United States Navy will be held at all naval hospitals in the United States and at the Naval Medical School, Washington, D.C., November 6. Candidates for admission must be between the ages of 21 and 32 at the time of appointment and graduates of or senior medical students in Class "A" medical schools. Those who are interested should write to the Surgeon General, Rear Admiral Ross T. McIntire, U. S. Navy, Bureau of Medicine and Surgery, Navy Department, Washington, D.C., for further information.

Clinics for Homecomers

Following its annual custom of holding "open house" at Starling Loving University Hospital on the morning of the Homecoming football game, the Ohio State University College of Medicine will present an interesting program on Saturday morning, November 18, the day of the Ohio State-Illinois game. There will be a demonstration of cases from 10 to 11, and clinical-pathological conferences from 11 to 11:30. Members of the medical profession are cordially invited.



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The Physician's Bookshelf

Operative Orthopedics. By Willis C. Campbell, M.D. ($12.50, *C. V. Mosby Company, St. Louis)* tends to deceive us by its title for not only are operative methods clearly present with 845 illustrations and four color plates, but in even greater detail is a discussion of the more conservative means of treatment. Because of its completeness, the book should appeal not only to the orthopedic surgeon but to the general surgeon and those physicians who are at all interested in industrial surgery. It gives the results obtained by 20 years of experience by an acknowledged master and is therefore most highly recommended.

Preclinical Medicine. By Malford W. Thewlis, M.D. ($3.00, *Williams and Wilkins, Baltimore)* is good reading for most of us. Most physicians are not interested in preventive medicine. He is trained to want action. His task is to relieve suffering and help his patients overcome disease. More and more the problems of preclinical medicine are forced upon us and here is a book on the subject that is easy reading and of high quality.

An Introduction to Sociology and Social Problems. A Textbook for Nurses. By Deborah M. Jensen, R.N. ($2.75, *C. V. Mosby Company, St. Louis).* While this book will have a definite place as a textbook in Schools of Nursing, it is also an excellent introduction to the subject for any physician who wants to get a glimpse of the fundamentals of the social sciences as they are taught today. It is all the more valuable for this purpose since it is written from the hospital viewpoint in terms we can all understand.

The Annual Report of the Rockefeller Foundation *(The Foundation, New York City)* gives a clear picture of the many activities of this organization throughout the world.

100,000 Days. By Dorothy Ketcham ($2.00, *Edward Brothers, Inc., Ann Arbor, Mich.)* is the study by the director of Social Service at University Hospital in Ann Arbor of what happened to a group of 275 children who were a proportionate number of those enrolled in the hospital school during a fifteen-year period ending in 1937. The emphasis is placed upon the individual rather than his disease and so we have further proof that the medical profession's best answer to the demand for State Medicine is the cultivation of the personal relationship between patient and physician.

A Handbook for Husbands and Wives. By Theodore Z. Arden *(Associated Press, New York City)* is a manual on sex instruction provided by the Y.M.C.A. It can be recommended.

Varicose Veins. By Alton Ochsner, M.D., and Howard Mahoner, M.D. ($3.00, *C. V. Mosby Company, St. Louis)* presents the diagnostic tests necessary to formulate a rational plan of therapy and then gives the details of the various plans which may be adapted to the individual case. One is impressed with the number of patients who are afflicted with this disturbance as one goes about the day's work. This monograph is therefore a welcome addition to every physician's library—no matter what his special interests in medicine may be.

The Poison Trail. By William F. Boos, M.D. ($3.00, *Hale, Cushman & Flint, Boston)* is the story of the life a great toxicologist told not as biography but as the story of man's struggle against his most insidious enemies. An interesting and most informative book enlivened by many personal experiences and case histories.

Love Problems of Adolescence. By Oliver M. Butterfield ($2.10, *Columbia University, New York City)* presents the romantic interests and love problems of a homogeneous group of American adolescents. No new problems are presented nor are we suffering from a shortage of factual material with which to solve them but as in all matter of personal hygiene we are suffering from a poor distribution and inadequate use of what resources which we have.

Do You Want to Become a Doctor? By Morris Fishbein, M.D. ($1.50, *Frederick A. Stokes Company, New York City)* surveys the whole field for the student about to enter college with the idea that perhaps he would like to become a physician. It will make an excellent present to any such and will give a correct view of the real place of a physician in modern American life.

A Doctor for the People. By Michael Shadid, M.D. ($2.50, *Vanguard Press, New York City)* is the autobiography of the founder of the medical cooperative at Elk's City, Oklahoma, and of his institution as he himself sees it. Told with all the persuasiveness of one of his race, the story starts out in his native Syria where badly handicapped by poverty, the author begins his education to secure his medical degree on to the building up of a comfortable practice in that part of Oklahoma whence came the people in "Grapes of Wrath". The sale of this practice and its struggling little hospital to the farmers of the community who were conditioned for this by their experience with farm cooperatives is the key to this tale. The story as written is to be accepted as a rationalization of what has taken place but not as an argument for cooperatives unless the other side of the story is known. Some of the

many physicians of the staff who have come and gone in the few years the plan has been in operation tell a quite different story as do the files of those who have investigated.

Clinical Abstracts. Medical and Surgical Articles of Outstanding Value with Index cumulative weekly, *(Keesing and Sons, New York, London, Amsterdam and Brussells)* is a new weekly abstracting service which depends upon selection through merit. Distinguished editors and clinicians select what shall appear. The abstracts themselves are well written and adequate. The listing, indexing, and the loose-leaf cover are most special and ingenuous so that the whole is a very practical and worthwhile service. Prepaid postcards are supplied with which the subscriber may borrow for a short time, the original of any abstract. A similar service in Europe was begun in 1911 and has proved most popular. With these high standards and years of experience in this field, this work should become popular in this country.

Food Health Vitamins. By R. H. A. and V. G. Plimmer ($1.60, *Longsman, Green, New York City)* is an excellent, concise statement of the principles which should guide in the selection of foods and an excellent discussion of the changes that civilization has made in the food supply. One of the interesting things about the book from a teaching standpoint is the diagram in colors of the "square meal".

Endocrinology In Modern Practice. By William Wolf, M.D. *(W. B. Saunders Co., Philadelphia)* is the second edition within two years and bespeaks the cordial reception which the profession has given this excellent text. Some of the subjects which have been introduced or have been given extensive treatment for the first time in this edition are: Protamine Zinc Insulin, Hypoglycemic States, Endometerial Suction Biopsies, Vitamins, Minerals, and many new diagnostic procedures.

Rural Medicine. The Proceedings of the Conference Held at Cooperstown, New York, on October 7 and 8, 1938 ($3.50, *Charles C. Thomas, Springfield, Ill.)* is a most interesting symposium on the subject of rural needs for medical service. It presents such subjects as rural hospital morbidity, acute surgical conditions in a rural hospital, traumatic emergencies, heart disease and vascular disease in a rural community. All these data are taken from Otsego County, New York. These are followed by discussion of the various phases of rural health department program, postgraduate medical education in rural areas and the economics of rural medicine. All of these subjects were presented from the viewpoint of men who were actually engaged with them in the county and discussed by a large list of distinguished guests. All who are interested in the future of American Medicine and of our rural population must read this book for its thought provoking discussion.

Food and Health. An Introduction to the Science of Nutrition by A. B. Callow ($1.75, *Oxford Press, New York City)* is an entirely rewritten edition by this British authority. It is indeed an excellent introduction to the present day knowledge of the subject.

How We Get Our Food. By Ethel K. Howard ($1.50, *Harcourt, Brace & Co., New York City)* is the story of milk, meat, bread, fruit, vegetables and poultry simply and well told and well illustrated by the supervisor of elementary instruction, Lakewood, Ohio.

Medicolegal Phases of Occupational Diseases. By C. O. Sappington, M.D. ($2.75, *Industrial Health Book Co., Chicago)* is a critical analysis of the medicolegal problem in occupational diseases especially the importance of establishing definite cause and effect relationship between employment and disability. It is a "must" book for all who deal with industrial cases.

The Journal of Endocrinology (Oxford University Press, *New York City*, $6.00 per volume) is the British journal devoted to this rapidly growing field of medicine. It appears under the editorship of E. C. Dodds and the auspices and a distinguished Council of Management. It will be a necessary part of the equipment of every physician interested in this subject.

Getting Ready to Be a Father. By Hazel Corbin ($1.25, *Macmillan, New York City)* is a text used by the author in her course for expectant fathers at the Maternity Center in New York City. In the modern marriage the husband and wife are a team working for their mutual

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Fighting for Life. By S. Josephine Baker, M.D. ($2.75, *Macmillan, New York City)* is the biography of the well known authority on infant and child care. Known to most of us by the department on child welfare which she edits for one of our popular magazines, she has contributed much to the welfare of the nation's children. The story of a full life well told.

So You Are Going to Stop Smoking. By J. C. Furnas ($1.25, *Simon and Schuster, New York City)* is a clever description of the author's own reaction to swearing-off. It analyzes the reasons, good and bad, for not stopping and for stopping. It also analyzes the various methods which may be employed; all done in a human vein that makes interesting reading especially for those of us who know that tobacco hurts us and yet we keep on smoking.

Facts About Food. By S. H. Belfrage, M.D. (5s, *Oxford Press, New York City)* is a successful attempt on the part of this British authority to present a reasoned statement about diet and nutrition as is acceptable to other responsible authorities. It is an excellent book to place in the hands of a patient to disabuse his mind about the various pseudo-scientific, "freak" systems of dieting as well as giving him adequate information about what he should eat.

Psychiatry for Pastors, Students, and Nurses. By Jacob D. Mulder, M.D. ($1.50, *W. B. Eerdman Publishing Co., Grand Rapids, Mich.)* is a book rich in case material. It contains much practical information supplied from a Christian viewpoint rather than from that of behavior.

The Family Meets the Depression. By Winona L. Morgan ($2.00, *University of Minnesota Press, Minneapolis)* is an investigation by the author of 331 of the families which were studied by Ruth Lindquist in 1927 to compare the cir-

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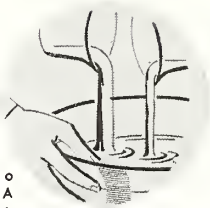
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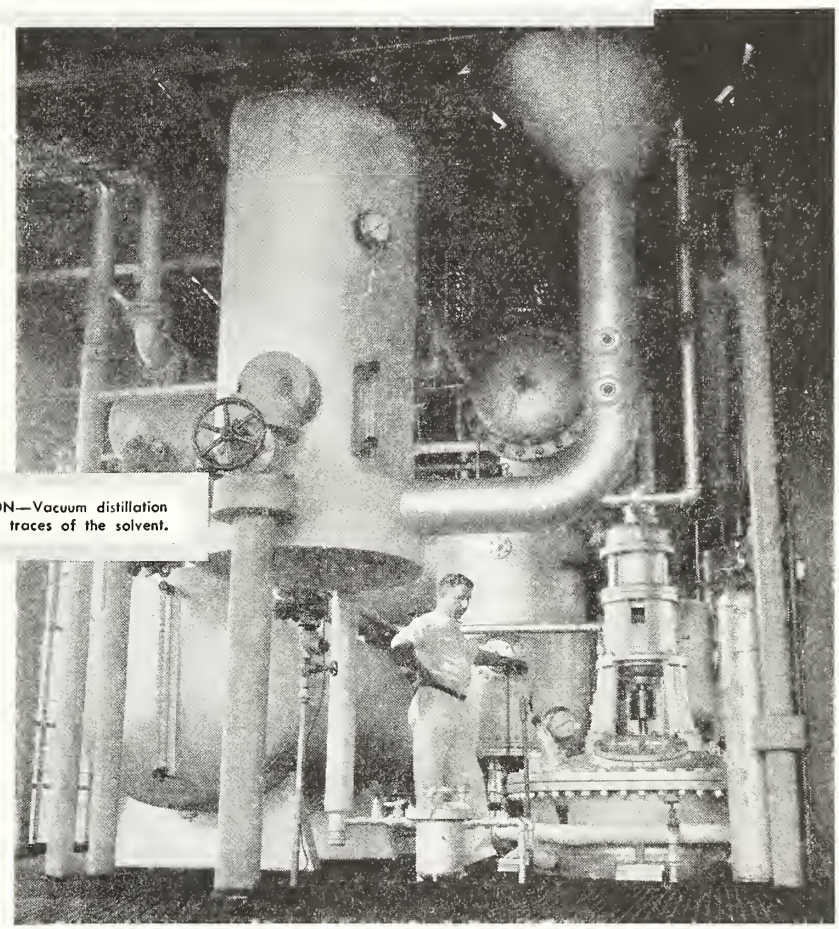
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cumstances of these families in 1933. It is most encouraging to note that most of these families have met the depression in the American way—no matter how hard they were hit and that out their experience they have developed a richer and finer life than they otherwise might have had. It is a good antidote to much that we are hearing about the breakdown of our family life.

A Historical Chronology of Tuberculosis. By Richard M. Burke, M.D. ($1.50, *C. C. Thomas, Springfield, Ill.)* presents in chronological order the high lights and pertinent records of individuals, discoveries, and events contributing most greatly to the story of tuberculosis from 5000 B.C. to the present day.

Our Sex Life. By Fritz Kahn, M.D. ($6.00, *Knopf, New York City)* is one of the best and most complete monographs on the subject and its illustrations are outstanding.

The Doctor's Murder Case. By Robert Portner Koehler ($2.00, *Phoenix Press, New York City)* is the story of the murder of an elderly woman whom the townsmen had condemned as an evildoer and a sort of a witch. The case proves most baffling and most interesting. A good mystery story.

The Wisdom of the Body. By Walter B. Cannon, M.D. ($3.50, *Wm. Norton, New York City)* tells in simple terms the story of how our bodies adapt themselves to many changes in its surroundings and within itself. Six printings of the first edition bespeak an equally popular reception to this thoroughly revised and greatly enlarged second edition.

Wings at Dusk. By Eugene Edmund Murphey, M.D. ($2.00, *Longmans, Green & Co., New York City)* is composed of charming poems by a practicing physician and a foremost ornithologist. William Lyon Phelps in his preface to the book expresses it so well when he says "His poems which seem to me to be full of imagination based upon knowledge and graced with felicity of language will delight many readers."

Cancer Handbook. Edited by Eric Liljencrantz, M.D. ($3.00, *Stanford University Press)* is the manual of the Tumor Clinic at the Stanford University School of Medicine. It is well fitted as a desk summary of the subject and should be there with every physician who handles in any way the cancer patient.

Cartoon Guide of Ohio. By Claude Shafer ($1.00, *J. J. Augustin, Publisher, 30 Irving Place, New York City)* is a very clever guide to all points of interest in Ohio, nicely illustrated with cartoons. An excellent way to make yourself and your family familiar with your home state would be to have a copy of this book on your library table.

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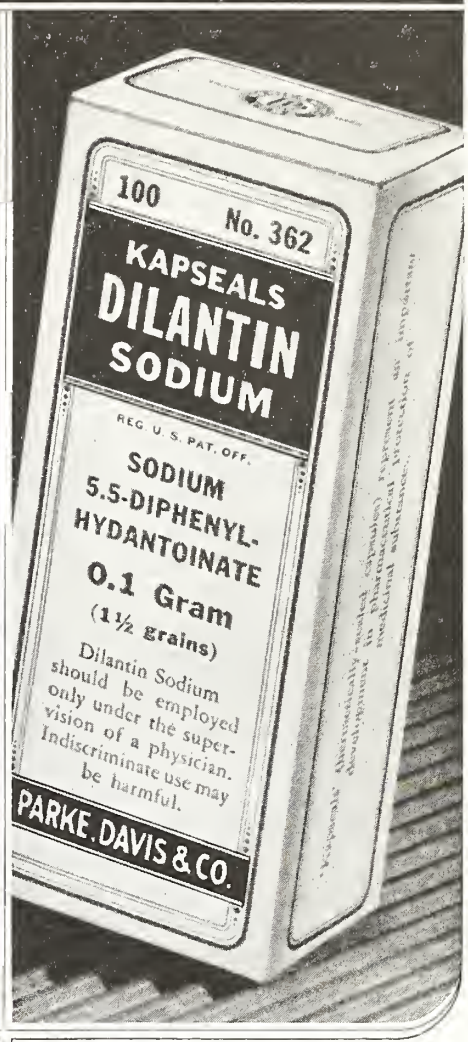
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News Notes

Alliance—Dr. Paul Bennett, spoke on "Social Diseases" at a recent meeting of the Salem Progressive Mothers' Club.

Columbus—Dr. H. M. Clodfelter spoke on "The Health of the Business Woman" at a recent meeting of the Business and Professional Women's Club.

Cuyahoga Falls—Dr. Paul C. Langan, Akron, was the speaker at a recent meeting of the Kiwanis Club.

Elyria—Dr. H. A. Robinson is the new city health commissioner, succeeding Dr. G. E. French, who resigned after 38 years' service.

East Liverpool—Dr. Francis R. Harrison, is the new city health commissioner, succeeding Dr. Arthur L. Watkins, who resigned to enter private practice in Cleveland.

Findlay—Dr. O. P. Klotz, Councilor for the Third District of the Ohio State Medical Association, spoke on the necessity for the early diagnosis and treatment of cancer at a recent meeting of the Sidney D.A.R.

Greenfield—Dr. Joseph Freiberg, Cincinnati, gave an address on "The Crippled Child" at a recent meeting of the Rotary Club.

Mansfield—Upon the recommendation of the Richland County Medical Society, Dr. Lincoln Fisher has been appointed medical director of tuberculosis work by the new Tuberculosis Advisory Board and the county commissioners. A new 0.5-mill levy to provide adequate funds for indigent tuberculosis cases will become available in January.

Oberlin—Dr. Raymond W. Bradshaw, head of the student health service at Oberlin College, has been named superintendent of Allen Hospital.

Portsmouth—Officers of the Mercy Hospital staff are: Dr. Harry F. Rapp, chief; Dr. T. G. McCormick, vice-chief, and Dr. Chester H. Allen, secretary-treasurer.

Port Clinton—Construction has begun on the new $140,000 Magruder Memorial Hospital.

Strasburg—Dr. C. A. Bennett, Tuscarawas County health commissioner, is taking postgraduate work at the University of Pennsylvania. His brother, Dr. Kenneth Bennett, will be acting health commissioner during his absence.

Youngstown—Honorable mention was given Dr. Samuel Sedwitz for his exhibit on peripheral vascular disease at the American Physical Therapy Congress held in New York, September 5-9.

Zanesville—Officers of the Bethesda Hospital staff for the coming year are: Dr. Edmund R. Brush, president; Dr. G. B. Trout, vice-president, and Dr. P. H. Elliott, secretary.

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Vol. 35 December, 1939 No. 12

JONATHAN FORMAN, M.D., *Editor*

CHARLES S. NELSON, *Managing Editor* ALICE B. HANEY, *Advertising Manager*

GEORGE H. SAVILLE, *News Editor*

The Present Status of Pertussis Immunization

JAMES G. KRAMER, M.D.

FOLLOWING the recognition by Bordet-Gengou of Haemophilus pertussis as the etiological agent in whooping cough, numerous attempts were made to utilize a vaccine prepared from this organism for prophylactic and curative effects, with little or no results.

Leslie and Gardner[1] in 1931, demonstrated the apparent cause for the failure of the vaccine therapy in former years, when they showed four phases in the life cycle of the Haemophilus pertussis. Later work by Shibley and Hoelscher[2] as well as Toomey et al.,[3] confirmed the findings of Leslie and Gardner, only to the extent of a biphasic existence of the organism; Phase I constituting the virulent form of the organism present during the acute catarrhal stage of whooping cough, morphologically coccoid in type. In order to retain its morphology and virulence, it must be propagated on a media containing blood where it produces smooth, glistening colonies. The second phase in the life cycle represents the avirulent form of the organism, and morphologically changed from the coccoid to a bacillary form. This grows very well on most of the commoner laboratory media, producing rough colonies.

Toomey's[4] ingenious conception of the mechanism of whooping cough identifies the virulent Phase I coccoid form as the initial infecting organism present in whooping cough during the catarrhal stage, and up to the period of paroxysms. After that, the avirulent or the second phase in the life cycle of the organism produces the symptoms that we recognize as whooping cough, by secreting or manufacturing the thick, sticky, mucoid balls that initiate the paroxysms, and are coughed up at the end of the paroxysms.

Since only the virulent Phase I coccoid form of Haemophilus pertussis can initiate the disease, the aim of any active immunization must be the preparation of antibodies against the antigen Phase I organism. In addition to the protection against the organism, additional protection against the toxin secreted or manufactured by the organism,[5] should be taken into consideration. To prepare a vaccine for whooping cough it must, of necessity, contain not only the organism, but the entire scrapings of the culture, so as to include the secretions of the bacteria. Any washing or cleansing of the growth removes antigens and lowers the effect of the vaccine;[6] a point ignored by some, whose work is at variance with the majority.

Madsen[7] early reported the use of Pertussis Vaccine in the Faroe Islands. He used a vaccine prepared from recently cultured Bordet-Gengou bacilli grown on blood agar, harvested without washing, killed with formaldehyde, suspended in saline, diluted to 10 billion per cc. Doses of 22 billion organisms were given in three injections.

The Author

● Dr. Kramer, Akron, Ohio, is a graduate of Western Reserve University School of Medicine, 1915; fellow American College of Physicians; American Academy of Pediatrics; visiting pediatrician at Akron Children's and St. Thomas Hospitals, Akron, Ohio.

Read before the Section on Pediatrics, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3-4, 1939.

During the two waves of whooping cough that swept the island the disease was not only more severe in the non-vaccinated group, but the mortality rate was 16 times greater in this group than among the immunized.

About this same time, Sauer[8] in this country reported the use of a vaccine prepared from freshly isolated strains of Haemophilus pertussis, grown on media containing 10 per cent human blood. The entire growth was harvested without washing, killed with phenol and diluted to 10 billion per cc. 80 billion were given, three times the dosage of Madsen. He reported marked protection of vaccinated groups compared with controls. Since these original reports, many studies have appeared in the literature, some of which we will review here.

One of the means of evaluating the efficacy of pertussis vaccine would be to compare the number of cases occurring in a vaccinated group with a control group. This is portrayed in two studies; one by Sauer[9], who used his official vaccine, 80 billion bacteria given each individual vaccinated; the other by Pearl Kendrick and Grace Eldering,[10] who used a vaccine prepared from freshly isolated cultures of Phase I Haemophilus pertussis, grown on media containing 15 per cent sheeps' blood. The culture was harvested after 72 hours of incubation, washed once with normal saline, and killed chemically with merthiolate 1/10,000 or 0.5 per cent phenol; 75 billion bacteria were given in four injections one week apart. The results of these studies can be seen in Chart I.

CHART I

PERTUSSIS IN VACCINATED AND CONTROL GROUPS

	No. of Children	Cases of Whooping Cough	Percentage Attack Rate
L. Sauer[9]			
Given Vaccine	2378	32	1.35
Control	1730	286	16.53
Kendrick and Eldering[10]			
Given Vaccine	1815	52	2.87
Control	2307	348	15.08

These studies conducted in two distinct areas, Illinois and Michigan respectively, show a surprising similarity in results. The attack rate among the unprotected control group is 15.85 per cent compared to a morbidity rate of only 2.11 per cent in the group protected with the vaccine.

We know from studies and observations made on groups of people in urban and rural communities, that the percentage of children who contract whooping cough following exposure varies from 70 to 98 percent.[12] This information gives us some criterion by which to judge the efficacy of the prophylaxis against whooping cough.

Sauer[12] has reported a morbidity rate of 4.7 per cent and L. Daughtry-Denmark[12] 10.9 per cent in children vaccinated with official Sauer's vaccine and exposed to whooping cough.

Other studies may be seen in Chart II. They show the relative response of exposure to whooping cough in a vaccinated group compared with a control group.

CHART II

MORBIDITY RATES AFTER EXPOSURE TO WHOOPING COUGH

	Exposures	Attacks	Percentage	
Kendrick & Eldering[10]				
Given Vaccine	297	38	12.8	
Control	273	187	68.5	
J. J. Miller[13]				
Given Vaccine	27	8	29.6	8.8
Control	32	29	90.6	52
C. H. Singer-Brooks[14]				
Given Vaccine	42	7	16.6	
Control	71	62	87.2	

In all three studies, the attack rate in the control group was within the normal expectancy percentage, while the immunized group showed only 14.5 per cent morbidity rate.

The only non-institutional study that failed to show a marked reduction in attack rate among those inoculated with pertussis vaccine was reported by Doull, Shibley and McClelland[15] from Cleveland, Ohio. These observers were not able to demonstrate any appreciable difference in the attack rate of the inoculated group compared with their controls.

An explanation for the failure of this study to show protection in the inoculated group must be linked up with the type of vaccine used. They followed all the usually accepted criteria of vaccine preparation except that the vaccine was washed with distilled water. This, it has been shown,[6] will remove certain antigens that seem to be essential in the production of pertussis immunization and probably accounts, in part, for the failure.

In addition to the reduction of the incidence of pertussis in the inoculated groups, all of the observers report a reduction in severity of the disease in those of the inoculated group who did contract pertussis. Even the pessimistic report of Doull et al.,[15] admits that the inoculated patients had mild attacks.

While the claims for the lowering of the attack rate are based on actual figures, we have only clinical impressions of the various observers to substantiate the claim for a reduction in severity and length of the disease. To more clearly illustrate this phase of protection, may I present a study carried out at the Summit County Children's Home and reported by me in the Journal of Pediatrics?[16]

Fifty children were inoculated with Sauer vac-

cine, 80 billion organisms were given, and 50 children of the same age were designated as controls. Two years following the inoculation of these children, whooping cough broke out in one of the departments containing 29 children. These could be classified into three groups; the first group was made up of 12 children who had never had pertussis and had not received pertussis vaccine; the second group consisted of nine children who had received complete pertussis immunization two years previously; the third group comprised eight children who had had pertussis. These children were observed over a period of seven weeks, and observations were made continuously day and night. During the first week the nurses were asked to record their

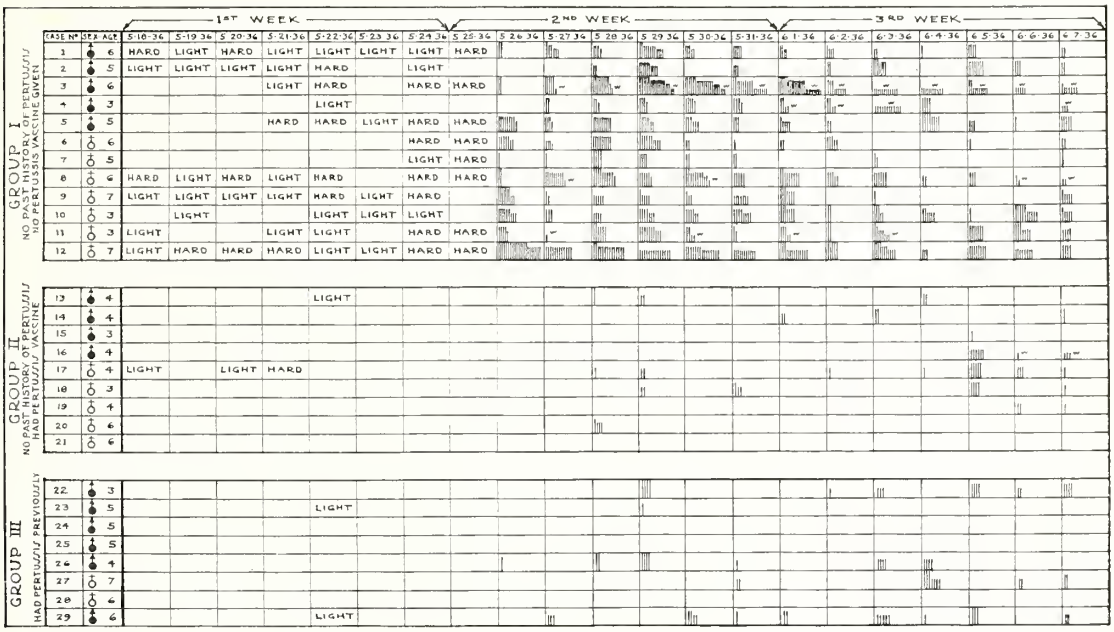


CHART No. 3

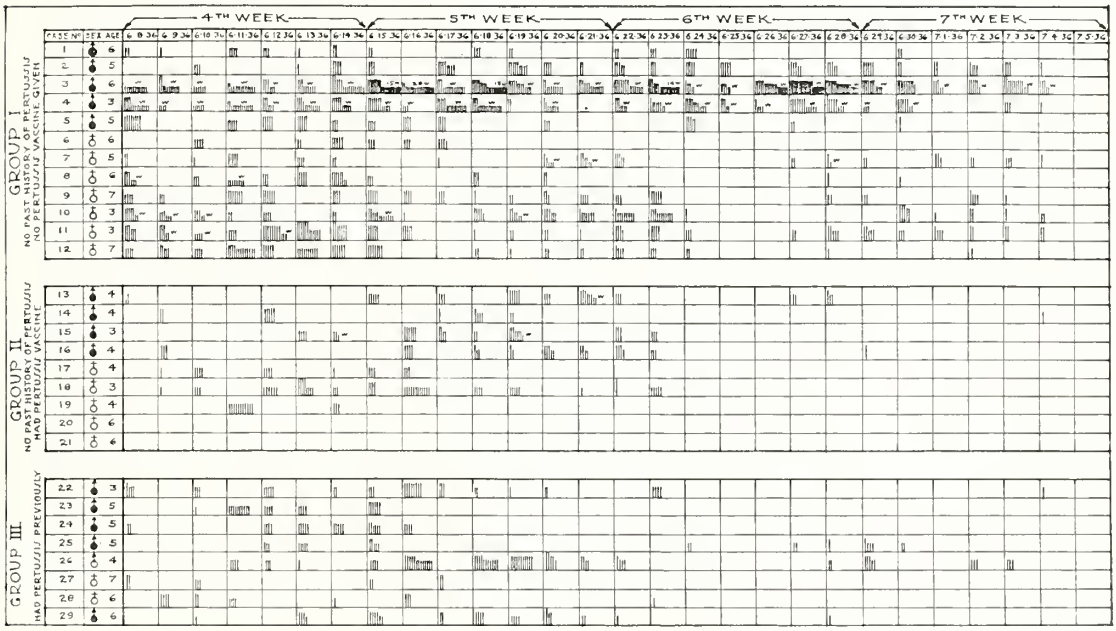


CHART No. 4

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impressions of the children's coughing. However, this did not seem to give the complete picture. So single vertical lines were used for each individual paroxysm, four gradations of paroxysms were represented by the relative length of line. A glance at the accompanying charts 3 and 4 shows better than one can narrate the course and severity of the various groups.

Group I, the 12 children who never had whooping cough or vaccine ran a typical seven weeks course of whooping cough. Group II, the nine cases immunized with pertussis vaccine, showed a very mild cough, lasting about three weeks for six of the nine cases. Case No. 20 coughed but one day, and No. 21 did not cough during the entire observation. Group III, those children who already had had whooping cough, averaged mild coughing spells for about three weeks.

Certainly an examination of the chart will permit the following conclusions:

1. Pertussis Vaccine (Sauer) confers a relative immunity within a period of two years from the time of administration.

2. Immunity resulting from the use of pertussis vaccine (Sauer) is as effective as a previous attack of the disease in conferring immunity upon children.

3. An attack of pertussis does not confer complete immunity from a mild recurrence of the disease.

The mildness and brevity of the attacks in the immunized groups, as shown in the foregoing study, were duplicated in a similar study by Seigle and Goldberger[17] in an epidemic of whooping cough among children in a sanatorium for tuberculosis. However, neither in their study nor mine, do we see the great reduction in the attack rate among those immunized as was demonstrated by other observers. The reason for this failure is probably due to the fact that institutional children receive multiple exposures daily over a long period of time, and that this is a far more severe test of immunity than the runabout or school child would ever have to face.

From the studies reviewed and the evidence presented we are able to show, first, a reduction in the mortality rate. This is exemplified by Madsen's study, which showed that there were 16 times the mortality rate among the non-immunized group as compared with those receiving the vaccine; second, evidence has been presented demonstrating a great reduction in the attack rate or the morbidity rate after exposure of the immunized, to pertussis. In the control groups the morbidity rate was 80 per cent compared to 14 per cent in the immunized group; the third benefit to be derived from immunization is exemplified by those immunized individuals who developed the disease. The mildness and brevity of their attacks were illustrated in the study presented and need no further comment.

Are these results then sufficient to recommend its use and a further continuance of the practice of immunization? To those who expect 100 per cent effectiveness in therapeutic or prophylactic measures, certainly this cannot be recommended. However, I know of no therapeutic or prophylactic procedure that is 100 per cent effective, and we should not spurn a procedure because it does not nearly approximate this figure. Any factor that will reduce the death rate, the length of the disease, and the suffering of the diseased, should be used and encouraged, providing it is a safe procedure. We should accept it, knowing its shortcomings and its faults, and educate our public to its advantages as well as its shortcomings. Considering the fact that in this country we have over 300,000 cases of whooping cough each year, with a mortality rate of 15 per cent in infants, our public health officials should be very enthusiastic over any procedure that will reduce these figures.

If then we are to immunize our infants and children against whooping cough, what type vaccine shall we use? As was said before, it must be made from the virulent Phase I coccoid type organisms, recently collected from active cases of pertussis, grown on a culture media containing blood. Human blood is preferable because if the blood of animals is used there is danger of sensitizing the individual receiving the vaccine, since it would be impossible to remove all vestige of the media from the vaccine. Washing of the harvested organisms should not be permitted because it removes antigenic substances essential for full immunizing effect. Sauer's vaccine at the present time seems to fulfill all the requirements and is probably the best product available.

NEED OF CARE

If one expects to obtain maximum results from the use of pertussis vaccine, watchful care of the product must be practiced from the time it is obtained until entirely consumed. It must be kept cold in the ice box except when in actual use. It may not remain in one's bag or on the office shelf because it will deteriorate rapidly in that environment.

The dosage should be 80 billion organisms for children under three years of age and 10 billion organisms over that age. The injections are best given at weekly intervals. Earlier, when the vaccine contained 10 billion per cc., each dose was divided in half and that portion injected into each arm. Now we have available a vaccine containing 2 billion per cc., making single injections of 1 cc., then 1.5 cc. and 1.5 cc. each succeeding week for the three injections, giving the total of 80 billion for the children up to three years, and 1 cc., 2 cc. and 2 cc. or 10 billion organisms, for those over three years of age. Alternate arms are used for each succeeding injection.

I have not encountered any more severe local or general reactions with the stronger vaccine

than was experienced with the weaker strength. There is the additional advantage of fewer injections.

Since we have no reliable test for immunity to pertussis there is no way of accurately checking the results of the injection. We do not know how long the relative immunity lasts or whether it diminishes with the years, therefore, some observers have advised an additional injection each year up to at least school age.

The injections should be subcutaneous. Intramuscular ones are not necessary, and intracutaneous injections, while they produce more antibodies than the subcutaneous route, yet the volume of vaccine needed to produce sufficient protection causes too painful a reaction, or the injections must of necessity continue over too long a period.[18]

The age at which one should begin pertussis immunization varies with different observers. Madsen warns us not to immunize before the first month because the Danes had two deaths apparently from the vaccine given before that time. In the Cleveland study, they record three convulsions within the 12 hour period following the inoculation. There is usually an elevation of temperature and the infant is very irritable and cross after the injection. I prefer to wait at least until the sixth month before giving the first injection to healthy, normal infants.

Sauer[19] has said that a four month interval must lapse after the inoculation before maximum immunity develops. Yet he has offered no real evidence to substantiate this statement. From the results of compliment fixation,[20] agglutination responses[21] and Opsonocytophagic tests,[22] one is led to believe that maximum response may be expected within four to six weeks following inoculation. While it is not positively known that these reactions are a measure of real immunity, yet they are the only yardstick available to us at present. Certainly all evidence points to the inadequacy of the vaccine if given after an exposure to whooping cough.

We physicians then should make every effort to immunize the infants and children under our care at an early age, especially since it is evident from the studies reviewed that:

1. Pertussis vaccine will greatly reduce the morbidity rate for whooping cough among those immunized.
2. Those immunized children who do develop whooping cough have a comparatively milder and briefer course of the disease.
3. The mortality rate among the immunized is decidedly lower.
4. Sauer's vaccine seems to be the most acceptable immunizing agent that we have at present.

159 S. Main St.

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Sulfanilamide in Treatment of Undulant Fever

One can see that the majority of the men are reporting good results with sulfanilamide in the treatment of undulant fever. A few are obtaining relapses, but there is a response to further treatment. Then men who are recording failures are definitely in the minority. The number of cases reported has been too small to warrant an opinion on the sulfanilamide group as a therapeutic agent in the treatment of undulant fever, but one must take cognizance of the failures and recurrences, and not become overly enthusiastic about this drug.—Mellgren C. Schroeder, M.D., Monroe, Iowa; The Jr., Iowa State Med Soc., Vol. XXIX, No. 9, Sept., 1939.

Lobectomy in the Treatment of Bronchiectasis

GEORGE M. CURTIS, M.D., and HARLIN G. KNIERIM, M.D.

IT is the purpose of this paper to consider certain features concerning the nature of bronchiectasis, a common pulmonary disease; to outline briefly its origin and development through the successive stages, which may now be readily recognized; and to conclude that lobectomy now offers real hope for the control of the more advanced forms.

We have studied 32 patients with bronchiectasis. During the past year we have accomplished our first six lobectomies. Five of these were for unilateral disease. One of these patients died on the twelfth post-operative day of a contralateral pneumonia. The other four are living and well. One lobectomy was for bilateral bronchiectasis, removing the lower right lobe, which was the more involved. Four months later this patient developed multiple brain abscesses, with a fatal outcome. These contained bacteria similar to those in the bronchiectatic lobe. While admittedly this is a small series of cases from which to draw any conclusions, it will serve, nevertheless, for orientation in further discussing the problem of bronchiectasis.

The Authors

● Dr. Curtis, Columbus, Ohio, is a graduate of Rush Medical College, University of Chicago, 1920; member American Surgical Association; Western Surgical Association; Southern Surgical Association; American Association for Thoracic Surgery; attending surgeon, University Hospital; professor of surgery and chairman of the department of research surgery, Ohio State University College of Medicine.

● Dr. Knierim, Detroit, Michigan, is a graduate of Ohio State University College of Medicine, 1938; member of resident staff, Harper Hospital, Detroit.

It is only recently that bronchiectasis has been regarded as a significant disease of the lungs, although it was recognized as early as 1808, when Laennec's assistant, Cayol, observed its differences. In 1819 Laennec first described that specific dilated state of the bronchi now known as bronchiectasis. The recognized incidence of the disease has shown a tremendous increase during the past 15 years, owing to the fact that diagnostic methods have greatly improved. This is principally due to the introduction of lipiodol, in 1922, by two French workers, Sicard and Forestier. This iodinized oil is now widely employed as a contrast medium for bronchography. Moreover, a better understanding of the etiologic factors has led to a more complete recognition of this formerly obscure condition. In 1930 Ochsner even asserted that bronchiectasis was the most frequently encountered chronic disease of the lungs and that it occurred even more often than tuberculosis. It is frequently stated that it is a more common cause of hemoptysis than tuberculosis.

The term **"bronchiectasis"** designates a dilatation of a bronchus. Moreover, according to present concepts we may consider it as a chronic progressively inflammatory disease of the bronchi and bronchioles, which eventually results in permanent dilation of the infected tubes.

Bronchiectasis is more frequent in children and young adults. Those under 40 are the most commonly affected. Thus 77 of Farrells 100 cases were 30 years of age or less. Both sexes are affected with almost equal frequency.

As yet **no single specific etiologic agent** has been convicted. Rather, many factors have been regarded as responsible for the development of those pathologic changes which eventually lead to the dilation of the bronchi. Congenital forms are recognized. Climatic conditions, resulting in an increase in upper respiratory infections, with resultant sinus involvement, are important causative agents. In general, two principal factors may be considered as producing the disease; **first**, damage to the bronchial wall, and **second**, somo mechanical influence. Infection is of prime importance.

Several have investigated the bacteriology of bronchiectasis, only to conclude that **no specific microorganism** is particularly associated with the disease. The fuso-spirochetal group has been thought to be of etiologic significance in certain so-called primary forms. Cultures of the sputum reveal a mixed group of pyogenic organisms. Robinson and Greey reported their bacteriologic findings in eight cases of bronchiectasis for which lobectomy was performed and cultures taken immediately postoperatively from the excised lobes. No common flora was found.

There are **two major forms of dilatation** in bronchiectasis; tubular and saccular. These involve the bronchi and their smaller divisions, and vary in size from a few millimeters to several

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centimeters in diameter. The cylindrical form is the more common and is diffuse in character, affecting particularly the lower lobes. Bronchiectasis is usually considered to involve the lower lobes; rarely, however, it extends into the apex of the lung. It is often found to be bilateral.

Microscopically, the dilated bronchi are the seat of a more or less **severe chronic bronchitis** depending upon the stage of the disease. The mucosa usually shows atrophic changes with loss of the cilia and a reversion to the squamous type of epithelium which especially lines the saccular cavities. Occasionally, instances are found in which the inflammation is hypertrophic with resultant folds of the thickened mucous membrane. In the advancing disease there is destruction of the smooth muscle, elastic tissue and even of the cartilage, with varying degrees of replacement of fibrous tissue. This is combined with an increased inflammatory cell reaction in the submucosa and deeper layers. The condition may progress to the point where there remains a fibrous tube or sac lined with stratified squamous epithelium. It is difficult to see how this could be healed by collapse therapy.

The principal symptoms of bronchiectasis are **chronic cough, sputum production and hemoptysis.** The character of these may vary greatly with the amount of involvement and the progress of the disease. In many instances the symptoms are so slight or are so masked by associated changes in the bronchi or lungs that the presence of bronchiectasis is not even suspected, and is, in fact, only shown by lipiodolization.

Cough early in the disease may be only occasional or associated with a mild bronchitis, while later it may occur as long paroxysmal attacks of productive coughing. Of major importance is the fact that the coughing periods are affected by postural movements. According to Warner the cough reflex is caused by overflowing or change of posture so that secretions leave the diseased bronchi which are not so sensitive, and spill over into normal bronchi, thus giving stimulus to the cough. This may explain why coughing paroxysms are most common in the morning, after the cavities have been filling during the night, and again later in the day as the secretions again fill them.

The **sputum production** may vary from a few cubic centimeters to over 1500 cc. daily. In certain instances it may have an extremely foul odor and may separate, on standing, into the three characteristic layers. Dietrich plugs are often found in the sputum and lend a "chunky" appearance which is suggestive of bronchiectasis. In the examination of the sputum lymphocytes do not predominate as in the sputa of tuberculous patients.

Hemoptysis may be observed in from 50 to 70 per cent of the patients as the only symptom or as part of the whole disease picture. It may appear as blood streaking in the sputum or as frank hemorrhage, and is due to bleeding granulations and ulcerations. Graham states that hemoptysis is more frequent in bronchiectasis than in tuberculosis. Cases of so-called "dry" bronchiectasis have been recorded in which the cough may be slight with little or no expectoration, and the patient, who is frequently a young adult, comes for investigation because of an unexplained hemorrhage.

As the disease advances, the general health tends to deteriorate in consequence of the **absorption of septic material** from the affected lung. In these patients there may be a considerable and progressive loss of weight; with fever, loss of appetite, sweating, and extreme weakness; the picture closely resembling that seen in pulmonary tuberculosis. The fever, chills and sweating may recur, resembling recurrent attacks of pneumonia, and are often related to the retained secretions, being relieved by removal of the secretions. When a large part of the lung is involved, dyspnea, cyanosis and pain may develop.

In the early stages of bronchiectasis the physical signs are often obscured by those of the associated bronchial or pulmonary disease: chronic bronchitis, atelectasis, emphysema or diffuse fibrosis of the lung. **The physical examination may even be negative.** However, one of the most characteristic clinical features of bronchiectasis is the changing character of the physical signs, which vary considerably according to the stage of the disease, the degree of associated pulmonary involvement, and the amount of secretion present in the cavities at the time of examination.

In fully established cases there is impairment of expansion of the corresponding side of the thorax. Large superficial cavities, when empty, may reveal increased vocal fremitus, which is abolished when the cavities are filled with fluid. These cavities may or may not be demonstrated by percussion. The commonest physical sign is the presence of medium crackling rales in the affected area, usually heard in the lower lobes. **Clubbing of the finger tips** is present in long-standing cases and is more evident than in any other pulmonary disease.

If the incidence of the disease is to be lessened and its effects corrected, two things are necessary: (1) A more general **recognition of the causes** of bronchiectasis with resultant effort to control them, and (2) when it is established, **early diagnosis** is imperative in order to diminish the difficulties and hazards of treatment.

The **diagnosis of bronchiectasis** is to be considered as incomplete unless one is able to recognize the location (i.e., what lobe or lobes are in-

volved) as well as the size and distribution of the dilatations. It is also necessary to differentiate other diseases, such as pulmonary tuberculosis, lung abscess, foreign body and bronchial carcinoma.

A good clinical history is important; however, a diagnosis cannot be made on this alone. A clinical picture suggestive of bronchiectasis should always be substantiated by a positive lipiodol bronchogram and sometimes even by bronchoscopic examination. Plain chest roentgenograms are often unsatisfactory. There may be increased bronchovascular markings or even saccular outlines; however, this is not sufficiently definite; therefore, the **injection of lipiodol** into the bronchial tree followed by X-ray studies in all cases of suspected bronchiectasis is essential. By this method alone can a definite diagnosis be established.

The most important point in the **differential diagnosis** is the possibility of mistaking bronchiectasis for chronic ulcerative tuberculosis with cavity formation. Cavities in the latter disease are usually situated in the apex of the lung, a region rarely invaded by bronchiectasis. Too, the tuberculous patient has tubercle bacilli in the sputum, a positive Mantoux test, and other characteristic signs such as fever, anemia, night sweats and a progressively downward course. While the presence of dilated bronchi does not exclude the possibility of tuberculosis, certain tuberculous suspects may have only bronchiectasis. In 1927 Hamilton stated that at least 25 per cent of all patients admitted to tuberculosis sanatoria were non-tuberculous. However, with increasing knowledge and better diagnosis, the Council on Medical Education and Hospitals, in December, 1935, reported that this number had been reduced to 9 per cent.

Other diseases must be differentiated such as: Chronic bronchitis, lung gangrene and localized empyema with a bronchial fistula.

In considering the **treatment of bronchiectasis** it is convenient to divide the disease into three stages; early, middle and late; as Bohrer and Lester have done in discussing the late results of lobectomy during childhood. Prevention and early diagnosis are of paramount importance, owing to the greater difficulties experienced in treating the more advanced stages. The early stage is best treated medically, and particularly by the use of postural drainage and repeated therapeutic lipiodolization.

Postural drainage is most valuable and may be employed continuously or intermittently. The patient lies with the head and shoulders at a lower level than the rest of the body, and assumes that position in which emptying of the cavities is favored by gravity. Many patients suffering from early bronchiectasis require no other form of treatment. They are able to go about their work if they empty their dilatations early in the morning. Some need to repeat the postural drainage several times during the day. In certain patients it can be profitably supplemented by bronschoscopic aspiration.

Lipiodol is a preparation containing 40 per cent of iodine in poppy-seed oil and consequently has definite value as an antiseptic. Locally, upon lipiodol instillation the iodized oil comes in direct contact with the infected bronchial tree. In addition, it has been found that when the lipiodol is coughed up and swallowed there ensues a rapid absorption of iodine from the alimentary tract into the circulation. In this manner the greatly increased iodine content of the circulating blood bathes the infected lung parenchyma, and likewise exerts a more general effect throughout the system.

The best treatment for the middle stages is already a matter of controversy, owing to the recent advances in thoracic surgery. However, lobectomy now offers real aid for the control of the more advanced stages. Up until a few years ago the treatment of bronchiectasis was almost entirely medical. Because of this it was adjudged by some to be a rather hopeless disease. With the development of thoracic surgery the prospects for successful treatment have greatly improved, while today there can no longer be doubt but that to a large number of patients surgical intervention offers considerable chance of a radical cure.

Bronchoscopic drainage is strongly advocated by Jackson as a means of rendering the bronchial tree less septic and of removing the large amount of thick, stagnant purulent secretions. Graham specifies the value of **bronchoscopy** in removing or treating local causes (foreign bodies, tumor growths, dilating strictures); in promoting drainage, and in attempting to prevent an advance of the disease by the spilling over of the septic secretions.

Various methods of **compression therapy** are in wide use today, especially in the treatment of pulmonary tuberculosis; however, these are applicable to a lesser extent in bronchiectasis. In view of the recognized pathological changes the fibrous cylindrical tubes may be most difficult to compress, although the saccular type may be the more readily collapsed. Thus, artificial pneumothorax has proved to be ineffectual and is now used principally as a preliminary to lobectomy.

Thoracoplasty has been attempted with some success as to symtomatic improvement in the treatment of unilateral bronchiectasis involving more than the lower lobe. It has also been used as a preliminary to other procedures. If thoracoplasty is unsuccessful, a lobectomy may be sub-

sequently accomplished, as was done in one of our cases.

With reference to **phrenic nerve operations** Graham summarizes that apparently the individual patient has only a relatively small chance of being improved by the resultant paralysis of the diaphragm. On the contrary, owing to the relation of the diaphragm to coughing, there is a definite chance that he will be made worse. Moreover, when improvement does occur it is usually not lasting.

Lobectomy should eventually prove to be the best method of treatment for **advanced** localized bronchiectasis, since the diseased area may be thus completely removed. However, in the past surgeons have been hesitant to advocate it because of the associated high mortality. In the earlier attempts made previous to the past decade the death rate centered around 50 per cent. However, the technic of pulmonary lobectomy has made such rapid advances during more recent years that the mortality is now less than 15 per cent in several clinics. Edwards lost seven (14.5 per cent) of his 48 patients, and O'Brien had one death (6.6 per cent) in 15 lobectomies. Churchill's brilliant results are most encouraging. His mortality rate was 5 per cent in a series of 40 patients for whom lobectomy was accomplished for bronchiectasis or cystic disease. Moreover, his last 30 (or more) successive cases, including one with the removal of the right middle lobe as well as of the left lower, have been accomplished without the loss of a patient.

Up until quite recently lobectomy had little to offer to patients with extensive bilateral disease. Nevertheless, Eloesser in 1933 and again Lewis in 1936 have reported the successful removal of both lower lobes. Churchill again reports a series of five bilateral lobectomies with but one death. In certain instances of bilateral disease the more involved lobe has been removed, with an ensuing definite improvement. Nevertheless, in our patient, C. H., fatal metastatic brain abscesses eventually developed.

Bronchiectasis, which is essentially a chronic disease, is so variable in its behavior that it is difficult to foretell accurately either the expectancy of life or the course and severity of future symptoms. Patients may have it nearly all their lives and yet die of some other disease. Appropriate medical treatment may greatly reduce the infection and thus enable the patient to live indefinitely with but few disturbing symptoms. Nevertheless, for some patients no treatment except actual removal of the diseased tissue by lobectomy is able to check the infection and to prevent complications. Death from bronchiectasis is usually due to one of its complications, the most common being pneumonia, the effects of the prolonged toxicity or brain abscess.

During the past the status of the patient with bronchiectasis has been considered grave. Medical treatment, instituted in the advanced cases, was without particular avail, while the older surgical mortality did not brighten the outlook. Nevertheless, modern methods of diagnosis and treatment have done much to render the disease less formidable, thoracic surgery has added greatly, and the prognosis in bronchiectasis at the present time is in consequence more favorable.

Symptomatic Purpura Hemorrhagica

Although the mode of action and fate in the body of sulfanilamide is not yet certain, it is plausible to suspect that, being a benzene derivative, para-aminobenzenesulfonamide, this drug may possess some of the toxic characteristics of benzene. Kern has reported several cases of benzene poisoning with hemorrhagic tendencies. Cushny cites Santesson's findings of hemorrhages in benzene poisoning in man and rabbits which he ascribes to fatty degeneration of the arterial walls. Cushny also notes the reduction in granulocytes in the blood stream following benzene poisoning. According to McNally, the postmortem changes in benzene poisoning are characterized by hemorrhages in the skin and viscera, especially the stomach and intestines, and fatty degeneration of the myocardium, liver, and kidneys. A case in which a purpuric rash appeared following the administration of sulfanilamide has been reported by Schonberg.

In our case, unfortunately, there were not sufficient blood platelet counts to enable us to state definitely whether or not a thrombocytopenia existed, but a platelet count of 180,000 following the transfusion of 500 cc. of blood may lead one to suspect a decrease in the number of platelets had existed. However, the number of platelets need not be diminished in purpura. Mackay states that the number of platelets in this condition is not necessarily diminished, and may even be increased. Minot also shows that the platelet count in drug purpuras is not diminished.—Markel and Rike, Denver; Rocky Mountain Med. Jr., Vol. 36, No. 11, November, 1939.

Adverse social factors have significance in medical care chiefly because of their power to disable. Deprivations, strains and dissatisfactions have physiological effects such as depletion of bodily substance, fatigue and emotional tension which are of special importance in aggravating disability already started by organic disease. Medical care can be more economical when discovery and control of adverse social factors is instituted. This is more important in the case of chronic disease such as tuberculosis.—Social Component in Medical Care, Thornton, J., Columbia Univ. Press, 1938.

Development of Child Psychiatry as a Neuro-Psychiatric Specialty

OSCAR B. MARKEY, M.D.

UNTIL the end of the nineteenth century when Kräpelin began to bring diagnostic order out of a chaotic nosology, the pathological aspects of mental diseases were studied from the organic side with little or no attention to the psychogenic. Modern dynamic psychiatry got its first major impetus with the foundation of the mental hygiene movement in 1908 and the first incursion into the children's field was noticeable soon after the Great War. With the backing of the Commonwealth Fund, the National Committee for Mental Hygiene then created the Division on the Prevention of Delinquency in Children. This agency began its work around 1920 through the establishment of the child guidance method. Briefly, this was new in the fact that emphasis was placed on the pooling of ideas from the four related professions in the field of human behavior; psychiatry, psychology, pediatrics, and social work.

The leaders in this movement were all psychiatrists with conservative training, men who had learned of the tremendous importance of social influences on the development of minor and major personality disorders. Their original discipline was organic, founded on the realization that organic activity accompanies every psychological symptom, however vague its manifestations may be. The names of Frankwood Williams, Thomas Salmon, Vincent Anderson and Lawson Lowery stand out among these early leaders. All of them had fine training in neuropathology, especially Lowrey, who later came to Cleveland to establish the first Child Guidance Clinic in Ohio. Modern child psychiatry was born on a bed blessed by the thesis that somatic factors are basic in the development and handling of psychological disorders.

GUIDANCE CLINICS

Child Guidance Clinics soon sprang up in different regions of the country, the original ones sponsored and supported by the Commonwealth Fund. In all of them the psychiatrist assumed the leadership, but never with any arrogant feelings of superiority over his allied professionals. There was a clear fusion of views, with a full appreciation of the interpenetration of the body, the intellect, the emotions and the environment. No workers in the field have ignored the idea, so well brought out by White[15] in his book "Twentieth Century Psychiatry", that the psyche and the soma are inseparable and as old as each other. Because a large number of cases studied in these clinics failed to reveal organic causes, the psychiatrist soon found himself working in many what-might-be-termed "situational" disorders. Little medical discipline is necessary in such cases, where treatment depends mainly on psychology, social work and psychotherapy. It is no longer contended, however, that any symptoms can be "exclusively" psychogenic or situational in origin. Workers in child guidance follow the psychobiological discipline. Even in the most involved of the modern psychological methods, psychoanalysis, the organic factor is the skeletal pattern. Freud himself has been criticized by some of his followers because of his classical statement and belief that "Anatomy is Destiny". The psychoanalytic characterology (oral, anal, pregenital and genital) is a system of psychiatric diagnosis derived from the embryonic order of organ development.

Dynamic psychiatry has thoroughly established the belief that the total personality, changing and individuated, is in eternal resistance to standardization. Often all of the findings, fixed and variable, are still insufficient to accurately explain any given symptom. Evidence of physical defect may be present in as many as 85 per cent of the cases in a Child Guidance Clinic, but absolute proof of the relationship between the specific findings and the specific behavior is seldom established. Causes shift and are generally multiple. One cause may produce any one or all of the known symptoms of personality disorder and any given symptom may be the result of any one or more of the known or speculative causes of misbehavior. The physical, the intellectual, the environmental and the affective influences can all be added together, yet their sum total will still fall short of the total personality factor. It is

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The Author

● Dr. Markey, Cleveland, Ohio, is a graduate of the University of Pittsburgh, 1922; member American Orthopsychiatric Association, American Academy of Pediatrics; member of staff, Mt. Sinai Hospital; associate psychiatrist, Mental Hygiene Clinic; associate professor of mental hygiene, Western Reserve University.

this mysterious remainder which proves the individuation of the human subject. While this idea was being developed in psychiatry, biologists like Coghill and psychologists like Koehler were learning the same thing experimentally. Coghill's theory of individuation and Koehler's contribution of the Gestalt or total configuration theory are scientific confirmation of these psychiatric beliefs.

COMMON PROBLEMS FOUND IN THE PRACTICE OF CHILDREN'S PSYCHIATRY

In psychiatry, as in other branches of medicine, developmental laws have taught us that the child is not a miniature adult. Psychiatric and neurologic conditions in childhood are in many respects unlike those found in adult life. Fantastic lying, eidetic imagery which in an adult would be termed hallucinatory, and marked withdrawal symptoms may be considered relatively unimportant in the first decade, and surely during the preschool years. As the child grows older, reality is controlled less by subjective stimuli and more by environmental influences. In maturity, the outer world of reality is normally more continuous with the inner (affective) world, so that the persistence of imaginary ideas might warrant the suspicion or actual diagnosis of a psychosis. Thus, a little girl who plays with imaginary companions may be considered normal, but the same type of play in an adult would obviously be considered a splitting in ideation. Bronson Crothers[5] reveals similar major differences in the more neurologic disorders. He explains that in children the trouble usually arises out of defective development, trauma or the diffuse effects which may complicate systemic disease, whereas the usual pathology in adult life results from degeneration of the nervous tissue or its vessels. The fact that the child's cranial vault is not rigidly limited in the early years is another factor. Also, the child is exposed to three more or less typical hazards to which the adult is relatively or entirely immune (prenatal damage, birth injury and the common infectious diseases). Children are oftener hurt and easily suffer head bruises, the effects of which are uncommonly recognizable. Blau[2], for instance, studied 122 cases of head injuries in children and concluded that the Gestalt or the personality pattern of the child, was more important in explaining the mental symptoms than were the localizing factors. He found many cases with marked organic pathology which presented no mental changes.

Diagnosis is very difficult in child psychiatry, for personality configuration is too volatile to warrant such labels as psychopathic personality, true psychosis, major psychoneurosis or true hysteria. Although mental symptoms are often very marked, they can seldom fit in with the diagnostic charts of the American Psychiatric Association. Stealing, enuresis, night terrors, or socially embarrassing sex symptoms can occur as startling signs of maladjustment which do not fit in with the common disorders relatively easily named in adult psychiatry. Diagnosis in the children's field reads more like a dynamic kaleidoscope of relationships.

Three major symptom-groups are discernible:

A. Those in which symptoms show no relationship to organic factors.

B. Those more or less proved to have an organic source.

C. Those involving organ function without evidence of structural change.

The more common examples of the first group are found in aggressive or withdrawing situational responses. Aggressive antisocial defenses like fighting, contentiousness, stealing, disobedience, sadistic activity and active struggle against routine are found in children who rebel against external frustration. Withdrawal reactions are common among those who submit, among those children who find reality too difficult and therefore retreat to a too tempting fantasy life that retards their growth. Anxiety feelings, disturbed sleep, worries, shyness, guilt feelings about auto-erotic activity, and fears are examples. Lurie[12] asked a group of senior medical students how they, as pediatricians, would handle two hypothetical situations, one in which a mother brought an eleven-year-old son who had been stealing, the other in which a mother brought her eleven-year-old son because he was enuretic. Most of the students considered stealing purely social or psychological, beyond pediatric interest. A few saw possible physical causes which might warrant a thorough physical examination. Similarly, most of the students failed to see the possible role of social factors in the case of enuresis, for they listed causes almost exclusively as physical. Lurie emphasizes the folly of trying to separate the "mind" from the "body". Even more significantly, he insists that the "individual" cannot be separated from the "environment". The dualistic concept of mind and body, and individual and environment, is happily abandoned.

THE CONSTITUTION

Even in cases in which organic causes are fundamental, the history is sometimes too vague to be dependable, as in suspected cases of post-encephalitis. In the latter group, examples of sharp personality changes are often found to have occurred in children in whom similar symptoms were already present in lesser degree before the onset of the diseases. This suggests the idea that personality changes induced by nervous disease are more apt to attack previously "unstable" children. Treatment is largely a matter of re-education, just as in the so-called non-organic disorders, requiring the cooperation of

skilled social workers and teachers. The organic treatment possibilities are woefully limited. Perhaps the finest example of this treatment idea is carried on by Bond and Appel in their school for the re-education of post-encephalitics at the University of Pennsylvania. Their techniques are clearly described in their book "The Treatment of Behavior Disorders Following Encephalitis"[3]. Similarly, the neurologic factor in Syndenham's chorea is sometimes far less important than the socio-psychiatric challenge. This has been reported previously by the author in a paper "The Emotional Factor in Chorea"[13].

There is a large group of cases in which organic function is disturbed without evidence of structural change. Physical causes are rarely found in enuresis, anorexia, encopresis, specific organ anxieties, homosexual neuroses, or compulsions, for example. There is no objective proof of the physiological readiness of a child for continuous conscious control of the sphincters, a development which may be achieved at nine months in one child and perhaps not before three years in another, without regard to the training methods employed. Unfortunately, parents are often encouraged to begin aggressive training by the common calendar rather than to wait for signs of developmental readiness, when gentle stimulation and guidance will suceed without psychological damage. With all due respect to the value of training for habit control, more harm can be done by imposing demands than by depending on positive encouragement for success and casual indifference to failure.

In all of these several groups, the psychiatrist recognizes that symptoms often carry tremendous emotional value. The Freudian "Advantage by Illness" is a dramatic consequence of discordant family life. One child who must always walk with crutches has learned to live cheerfully with her handicap, while another ran away from the orthopedist who was trying to prevent the shriveling of a shoulder involved in a poliomyelitic attack. The emotional relationships these children had in their separate homes were obviously highly determining factors. Parents and their substitutes, including doctors and nurses, place their own emotional values on the presenting symptoms and they are sometimes as apt to make them more defensively necessary to the patients as they are to alleviate them by sound psychological handling. One cannot underestimate the fact that parents' emotions are invested heavily in their children and that they may make crippling demands on them for "returns".

Southard and Jarrett produced the first fruits of relationship between psychiatry and social work in their classic, "The Kingdom of Evils"[14], and they gave first impetus to the development of modern clinical case work and psychiatric social work. The importance of family and neighborhood goes without saying and it is to the social worker to whom the psychiatrist looks for intelligent help in handling all the environmental impacts that bear heavily on the developing child. The average case worker, trained in a professional school of social work, is well-grounded in medical information and social psychiatry and can be depended on to be more than just a handmaiden to the attending physician.

THE ALLIED PROFESSIONS IN THE PRACTICE OF CHILDREN'S PSYCHIATRY

Psychology, really an offspring not more than a hundred years ago of sensory physiology and philosophy[9], has also become an integral part of children's psychiatry. Intelligence tests represent only the laboratory contribution of modern psychology and they have been sharpened appreciably since Binet's contribution in 1905. The "I. Q.", the clinical psychologist's badge, is of great value when wisely applied and interpreted, just as any laboratory aid in the field of medicine. Where the psychologist can predict probable reactions in a hypothetical hundred, the psychiatrist faces the clinical task of predicting the behavior of a single patient. Often enough, the clinical psychologist's training and experience are sufficiently broad, except for the general medical background, to place him in a position of equal importance with the psychiatrist. The Gestalt theory, behaviorism, studies in eidetic imagery and the discovery of organic as well as psychological factors in reading disabilities are just a few of the contributions which psychology has produced along side of objective measurement of intelligence.

The psychiatrist, acknowledging the primary importance of social work and psychology in his own field, does not lay monopolistic claim to the study and control of human behavior. The formation of the American Orthopschiatric Association in 1924 was the common achievement of psychologists, psychiatrists, educators, criminologists, pediatricians, social workers, anthropologists, and ministers who make up the membership. Orthopsychiatry is the science of preventing or "making smooth" the common difficulties in personality development. This society has been publishing a journal for over ten years and many of its papers significantly bridge the gap between conventional psychiatry and the children's field. One such paper is "Childhood Manifestations and Adult Psychoses"[8], a paper quoting and readily fitting in with two earlier papers by Kasanin and Veo[10,11], on the general subject of the relationship between childhood behavior and mental breakdowns in adults. The authors (Edwards and Langley) analyzed the records of 52 psychotics (23 males, 29 females, ages ranging from 18 to 68 years), drawn from the records of

almost 600 psychotics in a state hospital. A control study was made of 50 apparently well-adjusted people (32 males, 18 females, 19-68 years in age). There was substantial evidence that abnormal behavior in childhood was much more common among the psychotics than among the controls. At this point, the observation may be made that severe withdrawal reactions in childhood are apparently common precursors of adult schizoid or schizophrenic states, whereas cycloid temperaments are seldom in evidence before the onset of puberty.

PEDIATRICS AND CHILD PSYCHIATRY

Brenneman's "The Menace of Psychiatry"[4], with all its negative implications for child psychiatry, was probably the strongest single incentive for pediatricians to build a sound psychiatric discipline. The pediatrician is justly jealous of his place as a general practitioner in children's medicine and has had enough experience in the ordinary situations to lay claim to the belief that good pediatricians are in the best position to do good mental hygiene. During the past 15 years, great contributions have been made by such pediatricians as Basil Jones, Bronson Crothers, E. J. Huenekens, F. W. Schlutz, Graeme Mitchell, Edwards Park, Max Seham, Joseph Brenneman, C. A. Aldrich and John Zahorsky. One of the greatest contributions came from Clara Davis who worked first in the Mount Sinai Hospital in Cleveland and later in the Children's Memorial Hospital in Chicago on the general subject of the infant's ability to develop good feeding habits on his own. Her epochal paper, "Self-selected Diet of Newly-weaned Infant"[7], was conclusive proof of the fact that appetite is conscious and easily affected, while hunger is unconscious and may never reach the appetite level. Infants can select the right food, if allowed to do so, with minimal service and no efforts to force or cajole. C. A. Aldrich's work[1] has shown how easily Clara Davis' views can be practiced clinically. Zaborsky and Brenneman, particularly the latter, long ago saw the importance of a comfortable setting, good nursing techniques and general home relationships in the prevention and development of psychologic disorders in infancy and childhood. Zahorsky[16] calls attention to the fact that "the training received in most child guidance clinics turns out psychiatrists and not pediatricians". His charge is borne out by the evidence that few pediatricians have sought specific psychiatric training and that nearly all of these have left pediatrics for psychiatry as a result. The title of Bronson Crothers' book, "A Pediatrician in Search of Mental Hygiene"[6] is succinct enough to convince us that psychiatry seems like "another language" to pediatricians.

There are signs of better times, however. The National Committee for Mental Hygiene's Third Conference on Psychiatric Education in 1936 was a symposium for psychiatrists and pediatricians engaged in an effort to make the whole child the pediatrician's responsibility. The titles of some of the papers presented warrant optimism: The Responsibility of the Psychiatrist to the Pediatrician (Louis Lurie), Psychiatric Education and Service in Pediatrics (La Mar), Opportunities for a Liaison between Psychiatry and Pediatrics in a Child Research Institute (Washburn), Co-ordination of Pediatrics and Psychiatry in the Medical School (Putnam of Yale, Clark of Rochester, Crothers of Harvard, John Levy of Columbia), A Pediatric Viewpoint in the Teaching of Psychiatry (Graeme Mitchell), Methods, Results and Opportunities of Four Years' Liaison between Pediatrics and Psychiatry (Edwards Park and Leo Kanner, of Hopkins). One can also gain hope through casual search of the Pediatric literature during the past five years. Some of the articles include: Stammering and Stuttering; The Pediatrician's Responsibility; Mental Hygiene Problems of the Deaf; The Diagnosis and Treatment of Behavior Disturbances in the Home; Infection and Behavior; Psychiatric Implications in Enuresis; The Nature of the Human Factor in Infantile Paralysis; The Role of Masturbation Conflict in the Development of Psychoneurotic Symptoms, etc. There are similar signs in psychiatric literature of special value to pediatricians: D. M. Levy's Aggressive-Submissive Behavior and the Froehlich's Syndrome is one such and a whole issue of the Archives of Neurology and Psychiatry (April, 1937) prepared by some of his former students as a tribute to Adolf Meyer, was chiefly in the children's field.

OPPORTUNITIES FOR TRAINING IN CHILD PSYCHIATRY

The Commonwealth Fund selects five fellows for training in the Child Guidance Clinics of Philadelphia, Cleveland and Los Angeles, in the Mental Hygiene Clinic of Louisville and in The Judge Baker Guidance Center in Boston. There are other opportunities at The Worcester Child Guidance Clinic, The Detroit Children's Center, The Baltimore Mental Hygiene Clinic, The Michael Reese Hospital in Chicago, The Institute of Juvenile Research in Chicago and The Milwaukee Mental Hygiene Clinic. The prerequisites are based on primary training in psychiatry and the selections are made from a list established by the National Committee for Mental Hygiene, with all of the above agencies approving of the general procedures. There seem to be no opportunities for formal training in Graduate Schools of Medicine. The Commonwealth Fund also offers fellowships for Pediatricians in the Philadelphia and Los Angeles Child Guidance Clinics. Less formal facilities for pediatricians are available at Cornell, Colorado, Hopkins and in the Bradley Home in Providence.

Meanwhile, splendid results have been obtained

in several centers where practicing pediatricians and psychiatrists work along side of each other in the same clinic. The best known example is The Harriet Lane Children's Home in Baltimore, where Leo Kanner and his associates work in the pediatrics service and the pediatricians continue active treatment of their cases. William Langford of Columbia. trained in both pediatrics and psychiatry, is following the same principle of working in the pediatrician's own territory. His function is to help orient the pediatrics staff in common psychiatric problems and he leaves the milder psychiatric cases in the pediatricians' care, while he himself also works in the general pediatric and "well-baby" clinics. The pediatric staff is thus able to accept him as a pediatrician who knows more about child psychiatry than they do. His personal statement "I am still in a quandary as to what to call myself and continue to hop from one side of the fence to the other as the spirit moves me" sounds more like the writer's own feeling that he is like a "bat", neither pediatrician nor psychiatrist, depending on who happens to be the judge. La Mar at Cornell is another worker who is fusing the two specialties effectively. The time may well come when all medical schools will offer opportunities like this. There are a few gestures in the right direction, but curricular rigidities block development in most of them.

It is difficult to vision a sound mental hygiene organization in which work with children is not the principal base. Every state hospital must concern itself, directly or indirectly, with the mental health of the children caught in the maelstrom of adult psychoses. It should turn out to be an advantage, in some respects, for children whose homes are broken by mental disease, for they may then be exposed to the intelligent, protecting treatment of mental hygienists. They will have the advantage of freedom from exposure to the mentally sick relative and, further, placement in a situation safely guarded by orthopsychiatric principles. All this sounds pretty enough in writing, but it will be realized quickly if the great body of psychiatrists engaged in work with major mental disorders can take over responsibilities for outpatient service not only to families of the mentally sick but also to families with children showing signs of potential mental disease.

CONCLUSIONS

1. Continuation of mutual respect among the allied professions engaged in the study of human behavior will be a very helpful element in the advancement of child psychiatry. Good neuropsychiatrists will benefit greatly from close contact with social workers, psychologists and cultural anthropologists.

2. The "lines" drawn between neurology and psychiatry are artificial and a handicap which will lessen as neurologists and psychiatrists acquire better training in and appreciation of both fields. Similarly, pediatricians and psychiatrists will be less defensive of each other if they acquire a more common background of training and experience in ordinary psychiatric conditions.

3. The primary focus should be in medical schools, where basic courses in the understanding of so-called "normal" behavior of children and adults should be offered. Students should have a working psychiatric understanding of patients and their reactions during common illnesses which are not necessarily psychiatric. The whole psycho-biologic unit of the child, combined with his environmental influences, is a formula which students should recognize as the determining force in behavior.

7016 Euclid Ave.

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A Place in the Sun

The moment that we get people to living properly we shall see an enormous reduction in disease. One of the most extraordinary things is that the good Lord gives us sunshine and chlorophyll and other things that science talks about and yet when the sun appears man hides himself, and when it disappears he comes out in the open again. God puts His people in the sun and then society comes along and shoves His people back into dungeons and behind bars and in dark rooms —and that is what we call civilization.—Gaha, F., British Jour. Tuber., July, 1937.

The Management of Hyperphoria

M. PAUL MOTTO, M.D.

WHILE most ophthalmologists are conversant with the lateral heterophorias and the proper treatment of them, hyperphoria is less frequently recognized and, as a result, untreated. James Watson White,[1] who has, in my opinion, done more than any living ophthalmologist in helping to clarify and simplify the complex field of muscle anomalies, states "that in no branch of muscle work is there as much uncertainty and confusion, both as to diagnosis and as to treatment, as in the subject of hyperphoria."

The subject of hyperphoria is important not only because of its frequency, which is, according to Dunnington,[2] 7 per cent, but because of the severity of asthenopic symptoms which small degrees produce. Again, large amounts of hyperphoria may be without symptoms. No doubt small amounts of hyperphoria are overcome by the normal function of sursumvergence. Also, we must not forget that a head tilt will be the means of correcting marked disparities in level.

HISTORY

In all cases of muscle imbalance, a careful and thorough history is essential if we are to avail ourselves of another aid in diagnosis. The history should include heredity, a possible birth injury and the age of the onset of the squint; further, it should include any observation, such as the position of the head, or any abnormal fixation.

ETIOLOGY

Many theories have been advanced to explain the cause of hyperphoria. A study of these theories, however exhaustive, only leads to more confusion. For purposes of study, however, it is well to review some of the causes, accepting those which coincide with our training and experience, and disregarding those that fail to logically impress us. There are those who contend that hyperphoria is due to a mal-development of the muscles; others feel that it is due to abnormalities of the shape, size or level of the orbits. Authorities such as Duane,[3] White[4] and Dunnington,[5] believe that the vast majority of hyperphorias are of paretic origin. If we are to accept this view, then hyperphoria can be brought about by any of the causes of muscle paralysis.

White[6] is of the opinion, that "at least 98 per cent of cases showing a difference in level of the eyes are due to a weakness of one or more of the elevators or depressors, with usually some secondary contraction of the direct antagonist and secondary deviation of the associate antagonist."

Read before the Section on Eye, Ear, Nose and Throat, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

The Author

● Dr. Motto, Cleveland, Ohio, is a graduate of Ohio State University College of Medicine, 1913; member American Academy of Ophthalmology and Otolaryngology; fellow American College of Surgeons; certified by the American Board of Ophthalmologists; ophthalmologist to University Hospitals, Cleveland; clinical professor of ophthalmology, Western Reserve University School of Medicine.

SYMPTOMS

The symptoms of heterophoria and ametropia quite often simulate each other and at times it is somewhat difficult to ascertain which is the factor involved. Here we will find that a careful history, plus an equally accurate examination, should do much in leading us to the right conclusion. We are aware, for example, that the headache of hyperphoria is made worse by watching moving objects, than the one caused by an ametropia. Again, in muscular anomalies, reflex gastric symptoms are more frequent than in refractive errors. Suggestive also of a muscular condition is the blurred vision with both eyes, but clear with either eye. The more characteristic sign that we are confronted with in hyperphoria is the head tilt. Usually the degree of head tilt is quite marked, but we should be on guard to detect those cases in which there is just the slightest suspicion of a tilt. Therefore, during the examination, it is most important that the patient's head be kept in a perfectly straight position.

DIAGNOSIS

In order that the diagnosis of hyperphoria can be made, there are several simple tests which should be carried out. If we learn to do one or two accurately, we will arrive at the proper conclusion. A routine, systematic muscle examination should be followed. The following determinations should be made:

1. The associated muscle movements in the six cardinal directions of the gaze.
2. The measurement of the deviation present in each of these fields.
3. The deviation for distance.
4. The deviation for near.

The screen and parallax test of Duane is the test I use most often to ascertain the deviation

for distance and near. If we wish to verify our diagnosis in cases where diplopia is present, we can plot the diplopia on the tangent curtain.

TREATMENT

The treatment of hyperphoria can be divided into the conservative and radical.

In the conservative treatment of hyperphoria it is well to remember that experience, plus good judgment, will play the major role. To follow any particular rule is only to come to grief. Individualize each case, take time and be patient, and your efforts will be repaid many fold. The small degrees of hyperphoria lend themselves quite readily to conservative treatment. Patients come to us with one or even two degrees of hyperphoria, who are quite comfortable without any correction of it. They are satisfied simply with the correction of the ametropia. In these cases, then, it is well to disregard the hyperphoric correction. Again, we have seen cases in which there was a half to one degree of hyperphoria which caused the patient untold symptoms. This type of patient is quite often of the neuropathic type and should be so treated, and a partial correction of the hyperphoria will often prove beneficial. The smallest amount of hyperphoria which I have prescribed has been three-quarters of one degree; the largest has been eight and a half degrees. The prismatic correction of moderate degrees of vertical deviation is the procedure which I follow and which is more frequently productive of good results. The rule most generally followed by ophthalmologists has been to correct one-half to two-thirds of the hyperphoria and divide this amount between the two eyes.

In dealing with a case where the hyperphoria is due to a paresis of an elevator, a correction, by prism, or half or two-thirds will suffice. We come to this conclusion because of the fact that most of our vision is in eyes moderately down. On the other hand, when we are confronted with a paretic depressor, it may often be necessary to give the full correction, in order to correct the increasing hyperphoria in the lower field. In certain cases where prisms or operative procedure are not indicated, we will be compelled to resort to the frosted glass. The occluder of the Bausch and Lomb Company is less conspicuous and patients do not object to it. When conservative measures have been tried and fail to give relief, then operative treatment must be resorted to. However, no operation should be done unless we feel reasonably sure that the patient will be relieved. The operation to be performed will depend on which of the elevators or depressors is involved. There are no set rules, but only guiding ones. Duane has given us the following general rules to follow in the selection of the type of operation in muscle paralysis:

(DUANE). TABLE ILLUSTRATING CHOICE OF OPERATION IN MUSCLE PARALYSIS

Affected Muscle	Operation of Choice
Superior Rectus	Tenotomy Inferior Oblique Opposite Eye.
Inferior Rectus	Resection of Affected Muscle.
Superior Oblique	Tenotomy Inferior Oblique Same Eye or Recession Inferior Rectus Opposite Eye.
Inferior Oblique	Tenotomy Superior Rectus Opposite Eye.

Perhaps the most common ocular paralysis is that of the superior rectus. Associated with this is seen a marked overaction of the inferior oblique of the opposite eye. A tenotomy or a tenectomy of this hyperactive muscle tends to inhibit the action of this eye. However, a resection of the paretic muscle will result in an inhibited action of its antagonist (the inferior rectus) and cause an annoying diplopia in the lower field.

When we encounter a paresis of the inferior rectus, there is but one choice and that is a shortening of it because it is not practical to weaken the superior oblique of the opposite eye. Where there is a paralysis of the superior oblique muscle, the most effective procedure is a tenotomy or recession of the inferior rectus of the other eye.

If we are confronted with a paresis of the inferior oblique, tenotomy of the superior rectus of the opposite eye is the operation of choice. This is indeed a very rare condition and I have done the operation once with very good results. The following are three interesting case reports:

Case 1—Mr. C. H., age 49. Complaint: "Diplopia".

History showed the onset of diplopia was 30 years ago, during which time he wore a correction which was quite comfortable. Five weeks ago he broke his glasses and consulted another ophthalmologist, who prescribed glasses which he has worn the past month. He is uncomfortable with the new correction and feels that he has given the new glasses sufficient trial.

Examination showed a definite head tilt to the left shoulder. The right eye is higher than the left. Screen test verifies this. Further test shows a marked overaction of the right inferior oblique and underaction of the left superior rectus. Diplopia test on the tangent curtain shows diplopia increasing markedly in the upper left temporal field.

In the primary position there is R.H. 15 centrads.

In eyes up and left there is R.H. 19 centrads.

The patient was wearing with his correction:

Right eye, 8 degrees prism base down.
Left eye, 8 degrees prism base up.

The prescription which I prescribed and the patient wore with comfort:

Right eye, 4.25 degrees prism base down.
Left eye, 4.25 degrees prism base up.

Case 2—Mr. H. S., age 46, an accountant. Complaint: "Headache and eyes ache."

More definitely, the pain was along both mastoids and nape of neck; coming on in the afternoon. Further history showed that the patient, as a child, could not indulge in sports; always misjudged the ball in baseball; the ball most of the time striking him on the head. He always had double vision prior to obtaining glasses. This was eliminated with glasses, but he never had a correction that was comfortable.

Patient was wearing with his correction:
Right eye, 5 degrees prism base down.
Left eye, 5 degrees prism base in.

Muscle examination showed slight overaction of the right inferior oblique and slight underaction of the left superior rectus.

R.H., 6.5 centrads.
Exophoria, distance, 0.
Exophoria near, 12 centrads.

Prescription given with correction:
Right eye, 1.50 degrees prism base down.
Left eye, 1.50 degrees prism base up.

there was still present R.H., 12 centrads. With his correction the following prismatic correction was given:

Right eye, 3 degrees prism base down.
Left eye, 3 degrees prism base up.

Seven months later there was a further improvement, the R.H., 7 centrads. With his correction the following prescription was given and was worn with comfort:

Right eye, 1.75 degrees prism base down.
Left eye, 1.75 degrees prism base up.

COMMENT

My endeavor in this short paper on hyperphoria has been to give my personal experience with this condition. Much relief can be given to these unfortunate patients who daily go the rounds of eye physicians' offices without obtaining beneficial results. And why does this condition exist? My opinion is that it is due, not to the lack of knowledge on the part of the



Fig. 1. Illustration showing position of the right eye higher than the left.



Fig. 2-a. Illustration showing definite head tilt to the left shoulder.



Fig. 2-b. Illustration showing marked over-action of right inferior oblique.

Case 3—A.C., age 32. Complaint: "Double vision for past four or five years." First noted diplopia when playing ball.

Examination showed a definite difference in level of both eyes, the right being much higher than the left. Further observation showed an extreme head tilt to the left shoulder and a marked overaction of the right inferior oblique and definite underaction of the left superior rectus.

In the primary position there was a R.H., 23 centrads.

In eyes up and left there was a R.H., 32 centrads.

The patient was advised that an operation would be necessary, as the amount of the deviation was decidedly more than could be corrected with prisms. A right inferior oblique tenectomy was advised and the patient was scheduled for operation the following week.

The patient, up to this time, had been driving his car and he was advised to discontinue. In a few days a telephone call from the patient's wife brought the news that the patient had been in an automobile accident. Fortunately, neither of the drivers were seriously injured, but both cars were damaged severely. No doubt many automobile accidents are caused by some muscle disturbance, such as the patient had. A few weeks later the patient was ready for operation and it was done under a local anesthetic. Ten millimeters of the right inferior oblique were resected. One month following the operation

ophthalmologist, but rather to carelessness, pressure of time, lack of interest and failure to do the simplest muscle tests. If we are to retain the confidence of the public, we must earn it. If we are too busy to give the time, attention and study to these patients who truly need it, then it would be better that we refer them to ophthalmologists who are especially trained in the field, and who will give the time so necessary if good results are to be obtained.

Repeated examinations are quite frequently required in order to arrive at a diagnosis. Explain this to the patient and you will find that he will cooperate with you and feel that you have a real interest in him. When the time comes for the final prescription, the patient will have added confidence in you and you will not experience any difficulty in having him wear the correction. If you follow the simple advice which I have outlined, every hyperphoric patient will be a grateful one for the relief which you have given him.

SUMMARY

In this review of the subject of hyperphoria, attention has been called to the frequency of the condition and the fact that it is very often not

recognized. The importance of a thorough history is stressed and a few of the etiological factors are listed. The symptoms of hyperphoria and ametropia are contrasted and the important symptoms of head tilt are emphasized.

In the diagnosis of hyperphoria, the value of a complete, routine, systematic muscle examination is brought out and the necessity of measuring the amount of deviation in the six cardinal directions of the gaze. The conservative treatment is advocated in moderate degrees of hyperphoria and operative interference in marked degrees of vertical deviation. Cases are cited and the treatment outlined in each.

650 Rose Building.

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Cyclopropane Anesthesia From an Allergic Standpoint

All the true allergic cases were benefited from administration of helium. As space is too limited to report more cases in detail, the writer wishes to summarize and conclude by calling attention to the salient points of this paper.

First, that certain people when given cyclopropane definitely become allergic or asthmatic or even bronchiectatic, and these all have a history of hayfever or asthma. However, all hayfever or asthma sufferers are not allergic to cyclopropane.

Second, that these conditions are relieved or improved by the administration of helium to the anesthetic mixture.

Third, since helium is inert, nonexplosive and next to the lightest element, it dilutes the mixture making the anesthetic gas lighter, more volatile and easier to breathe by the distressed allergic patient.

Fourth, when cyclopropane is diluted with helium to be as light or lighter than air it is carried through the narrow alveolar orifices, thus making the anesthetic more effective and prevents the predisposition toward atelectasis.

Recently, the writer has had no severe cases wherein the patient's chest and throat filled with mucus tinged with blood. He now uses helium freely whenever he notices the first symptoms of allergy while giving cyclopropane and has had the most gratifying results therefrom.—Russell F. Bonham, M.D., Houston, Texas; Current Researches in Anesthesia and Analgesia, Vol. 18, No. 5, Sept.-Oct., 1939.

Auscultation of the Abdomen

Peristalsis is, of course, normally heard in the small intestine The best place for auscultation of these sounds is the left lower quadrant, where there is the least chance of confusion with the sounds of other parts of the gastrointestinal tract. Cannon describes the rhythmic segmentation of the small intestine as follows:

"There is a soft rustling of fine crepitating noises; a group of little rattling, explosive discharges; a rough, rolling rumble, like miniature thunder. It has three distinctive features: (1) The sounds usually rise slowly to an acme of intensity and gradually subside; but they may increase slowly to a maximum and suddenly cease or begin loud and gently decrease. Each may last two or three seconds or more. (2) The sound persists for some time in one place; it may be audible for a minute or many minutes, but does not move away. (3) There is a distinctive rate of six to twelve per minute, thus two to four times as frequent as the gastric persistalsis."

Monks states "in order roughly to indicate on the outside of the body the position ordinarily occupied by the upper, middle, and lower thirds of the (small) intestine, I have found that two straight lines running obliquely across the abdomen at the two ends of and at right angles with the line of the mesenteric root will divide the abdomen into three regions, each of which will contain, in most bodies, about one-third of the intestinal tube, the upper third in the first region. the middle third in the second, and the lower third in the third." Thus the upper six feet are in the left upper quadrant, partially under the ribs, the middle portion is in the middle part of the abdomen and the lower portion is in the pelvis and right lower quadrant. This is an important fact to keep in mind in any method of abdomina diagnosis where intestinal localization is necessary.

The peristaltic sound of the large intestine can with difficulty be differentiated from that of the small intestine. There is an almost constant succession of little popping noises and faint gurgling heard over the ascending colon. There is no uniform rhythm detectable over the cecum or ascending colon as there is in the stomach and small intestine. A splash may be heard normally over the cecum at times by placing the bell of the stethoscope over McBurney's point and dipping with the hand. Metallic tinkle is heard only in the presence of disease. The peristaltic sounds from the large intestine are more marked over the ascending and transverse colon than over the descending and sigmoid colon due to the greater peristaltic activity and more fluid content of the former two.—Barton McSwain, M.D., Paris; The Jour. Tenn. S. M. A., Vol. XXXII, No. 11, Nov., 1939.

Use of Skin Tests in the Diagnosis and Treatment of Rheumatoid Arthritis

JAMES R. REEVES, M.D.

WHEN we consider the present-day treatment of arthritis we are impressed not so much by what is not known about it, but we are impressed by how little we use what is known. We see reflected in the character of medical practice an attitude of hopelessness when the problem of treatment of painful, swollen joints presents itself. This situation should not exist because while we are not sure of the cause of most types of rheumatism, still only a very small number of cases is incurable if the proper treatment is begun early in the disease. Since the correct treatment is different for each of the various types of arthritis the control of the disease depends upon the early recognition of the different kinds as they occur.

Unfortunately for the physician the clinical classification of acute and chronic arthritis is confusing; each year brings more new classifications to confuse the literature. We should probably be wise to discard them all and return to the one used by Sir William Garrod who in 1890 stated that there are two kinds of arthritis, rheumatoid arthritis and osteo arthritis. These two types constitute 60 per cent of the cases ordinarily seen. If we add the cases of acute arthritis and two additional types of chronic arthritis we have caused Sir William's classification to include probably 90 per cent of all cases and to be a good simple working classification. In this classification, which is not another new one but one arranged by Phillip Ellman, are combined the good features of others by the British Medical Association and the International League Against Rheumatism which divides all joint manifestations into articular rheumatism and non-articular rheumatism. Articular rheumatism is then sub-divided into two main groups, acute and chronic. Acute arthritis is divided into three main types, acute infectious arthritis, which is again divided into six types depending upon the cause and listed in the order of their frequency. The second acute type is the acute polyarthritis of rheumatic fever; and type three is the swollen painful joint due to hemorrhage and usually trauma follows.

CLINICAL CLASSIFICATION OF ARTHRITIS
(Phillip Ellman)

I. NON-ARTICULAR
- a. Bursitis
- b. Fibrositis
- c. Myositis
- d. Neuritis
- e. Panniculitis (lumbago, sciatica and peri-neuritis)

II. ARTICULAR
- a. Acute Arthritis
  - 1. Acute infectious arthritis
    - a. Gonorrheal
    - b. Pyogenic
    - c. Tuberculous
    - d. Typhoid
    - e. Dysenteric
  - 2. Acute rheumatic polyarthritis
  - 3. Traumatic, hemorrhage
- b. Chronic Arthritis
  - 1. Rheumatoid
    - a. Still's Disease — Syn. Atrophic Proliferative Arthritis deformans
  - 2. Osteo-arthritis — Syn. Hypertrophic Degenerative Endocrine
  - 3. Mixed arthritis — Syn. Combined (rheumatoid and osteo-arthritis)
  - 4. Menopausal — Syn. Climacteric Villous

Chronic rheumatism is divided into four types which we see together with synonyms most commonly used. The treatment of rheumatoid arthritis which in its early stages may appear as an acute illness—and the diagnosis of this disease as it differs from other types of joint disease—is the problem with which this paper deals. We consider osteoporotic or hypertrophic arthritis relatively easy to diagnose and in practically all cases amenable to a treatment consisting of thyroid gland substance, pituitary extracts and Vitamin D. In the case of mixed arthritis this treatment is necessary in addition to any therapy given to correct the rheumatoid arthritis.

The opinion is current in the literature that the rheumatoid state is a general systemic change from the normal during which any one of several diseases may appear. The most common ones to occur are Sydenham's chorea, acute rheumatic fever, rheumatoid arthritis, non-articular forms of joint disease and glomerulonephritis. The fundamental deficiency is thought to be nutritional, endocrinal, or both, and the exciting cause the streptococcus. The theory of a single cause, namely the streptococcus, for acute

The Author

● Dr. Reeves, Columbus, Ohio, is a graduate of Indiana University School of Medicine, 1933; instructor in medicine, Ohio State University College of Medicine.

Read before the Section on Medicine, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

rheumatic fever and rheumatoid arthritis is referred to as the unitary theory and is, I think, the prevailing opinion today. The work of Cecil, Poyner, Fisher and many others demonstrating the presence of streptolysins in joint fluid and blood serum, the similarity of the pathological changes in the tissues of both diseases and the favorable response in the majority of patients given anti-streptococci therapy convince us that whoever gets rheumatoid arthritis or rheumatic fever would not have done so without the presence of streptococci.

CHRONIC INFECTION?

Individuals with rheumatoid manifestations in contrast to those having osteoporotic or hypertrophic rheumatism are usually young and almost never obese; on the contrary they are in most instances nutritionally deficient. The constitutional changes present are reflected by general malaise, lassitude, anorexia and sleeplessness. The patients look ill, wasted and toxic, complain of fatigue, are irritable and exhibit vaso-motor phenomena, such as dermatographia, poor circulation, cold extremities, achlorhydria, and many times they have psoriasis. Fever is usually present and the sedimentation rate of red blood cells is elevated. In most cases there is a mild leucocytosis with eosinophils, usually around 4 per cent or 5 per cent. This is certainly the picture of chronic infection.

The enormous number of drugs and other substances suggested for use in the treatment of rheumatoid arthritis reflects a successive series of failures each with final discard as in the case of foreign protein therapy currently. Gold and sulfur are still being used, together with numerous proprietary combinations of formic acid; however, we have preferred to attempt to correct the fundamental systemic deficiency by a diet similar to Pemberton's and by the use of biological preparations made from streptococci. The success of these methods in clinics other than our own has been good.

Most cases of rheumatoid arthritis first appear from one to six weeks following a local infection, the most common of which is a sore throat. The answer to the cause of the arthritis is found in the difference between two individuals, one of whom completely recovers from the local throat infection, and the other, who does not recover but develops arthritis. In the case of the one who does not recover, the streptococci remain in the throat and naso-pharynx and at some later date absorption of their products or the bacteria themselves cause the synovial membranes of one or more joints to become inflamed and exude fluid. The systemic difference in these two people is considered by some to be an expression of immunity in the one and hyper-sensitivity or allergy in the other. In this connection, it is well known that streptococci can and do produce immunity and that they are destroyed in the body by phagocytosis.

We are on very debatable ground when we attempt to define the terms allergy, hypersensitivity and immunity and yet we are forced to do so if a working hypothesis is constructed to explain our observations. In our clinic the term allergy has come to mean a congenital tissue antipathy for certain foreign proteins which, when brought into contact with the tissue, cause true anaphylactoid reactions such as asthma or anaphylactic shock. The term hypersensitivity has been considerably clarified by Kahn, who substitutes the term dis-immunity and supposes that the body can continue to increase its antibody production to a bacterial substance to a degree which is harmful. That is, due to repeated absorption of antigen or to constitutional changes in the organism, the body builds immunity to a harmful degree and then is in a state of hypersensitivity or dis-immunity which causes overreaction to bacterial protein resulting in joint changes, pseudo allergic changes in skin and mucous membranes. Immunity is that state remaining when the original infection is completely healed and the immune bodies persist in the body fluids and tissues.

We have been attempting to demonstrate the presence of dis-immunity or immunity to streptococci in patients with rheumatoid arthritis and rheumatic fever by means of skin tests. For this purpose we are using as an antigen a solution of streptococci made by lysing the bacterial bodies with bacteriophage. Four test solutions are used, three of which are 1 per cent peptone solution containing antigen from lysed streptococci belonging to hemolytic, indifferent and viridans groups, the fourth solution is a pure 1 per cent peptone solution for control. Our present knowledge of the antigenic properties of streptococci and their type specifically warrants the use of antigens made up of all the components of the streptococcal bacterial body and the toxins produced. Solutions of this kind are made by growing the organisms in groups for which a lysing bacteriophage has been produced, in 1 per cent peptone broth for 48 hours; then when the cloudy solutions are seeded with phage and reincubated until clear they are filtered and represent the antigen. Solutions combining the antigen from the three groups of streptococci mentioned are used for treatment. The antigen for skin-testing is made for us by Eli Lilly and Company, and the solution for treatment is an old one which has been available several years under the name Streptolysate.

SKIN TESTS

Using the solutions described in 0.1 cc. amounts in dilutions of 1-1000, the following reactions occur:

1. An immediate reaction which appears within 15 minutes and disappears in about two hours.

This reaction varies in intensity with one or more of the antigens. It consists of a raised pale edematous area from which pseudopods appear and is accompanied by itching and stinging.

2. An erythematous area which fades quickly but returns in 24 to 48 hours and is characterized by an irregular area of erythema in which the skin is swollen with a stippled uneven surface. This area occasionally itches and desquamates and is often followed by pigmentation.

3. An immediate wheal with pseudopods to all four solutions, a reaction in which the control cannot be distinguished from the antigens.

4. A slowly appearing erythematous raised area which begins in two to four hours and slowly progresses to reach a peak in 24 to 48 hours when it is indistinguishable from the second or immune reaction. Patients with skin reacting antibody of this type will respond with mild erythema to normal saline.

5. No reaction at all to any of the antigen solutions or to the control.

These are the typical reactions, the intensity of which varies considerably with individuals due to the marked variability in the skin reacting factors. Normal healthy subjects usually are not sensitive to peptone and many exhibit delayed reaction to the antigen solution or immune reaction which we consider the normal response to some recent streptococcal infection. Patients with rheumatoid arthritis usually exhibit the first reaction described in which the wheals produced by the antigens are greater and more intense than those produced by the control. We have tested approximately 200 arthritic patients in this manner with the result that in no case has there been a delayed or immune reaction when the patient had rheumatoid arthritis. Patients with this type of arthritis are divided about evenly between those who react to all three antigens, those who react only to antigen from indifferent streptococci, and those reacting only to antigen from streptococcus viridans. From the standpoint of the allergist these are not always positive reactions because they may lack in intensity the characteristics of true urticarial wheals; however, they do indicate to us the presence of a typical antibody-antigen responses described by Kahn as belonging to the dis-immune state. We are encouraged in this view by the result of desensitization, so-called, and re-immunization of arthritic patients which produces, along with improvement of the disease, the true delayed response of immunity.

Patients who exhibit some reaction to the antigen solutions beyond the control peptone solution without the delayed reaction and who have the symptoms of rheumatoid arthritis are treated by giving extremely small doses of the combined antigen solution intravenously. They are given a high fat, low carbohydrate diet, focal infections are removed if found, and to those patients who have hyperglycemia we give small doses of insulin. The amount of antigen is increased each day depending upon the fall of temperature and pulse and the absence of such symptoms as headache, sweating and increased nervousness until the amount of 5 cc. is reached. The patient is then given 1 cc. or 2 cc. per week for a period of one to three months. In our clinic this treatment of rheumatoid arthritis has not failed in any case in which treatment was begun within the first six to eight weeks of symptoms, and it has produced remissions in patients with chronic rheumatism present as long as seven years.

Criteria for discharge of a patient from further treatment are: normal temperature, normal pulse, return of eosinophils to normal numbers in the blood, return of joints to normal in the absence of structural deformity, normal sedimentation rate and a gain in weight.

In contrast to the skin reactions described in rheumatoid arthritis, patients with rheumatic fever early in the disease are apt to exhibit the prompt atypical immune reaction which we have never seen in rheumatoid arthritis. A diagnosis is difficult to make of patients with rheumatic fever where no cardiac changes are yet demonstrable. [In patients with rheumatic fever in whom no cardiac changes are yet demonstrable the diagnosis between the two diseases is difficult.] The skin reaction to streptococcic antigen in many cases is an aid to diagnosis.

X-ray and Pregnancy

X-ray pelvimetry is making rapid strides in the hands of others as well as our own. Great contributions are being made in X-ray analyses of pelvic architecture by Caldwell and his coworkers. We have been studying soft tissue architecture by ordinary uncomplicated X-ray examinations.

X-ray visualization of the soft tissues of advanced pregnancy is being developed as a new field in the practice of clinical roentgenology. Although obstetricians and roentgenologists know, as yet, very little about the subject, with reasonable attention to principles, and with good film exposures, real practical information may be obtained. So far, we have been able to demonstrate, with the method to be described, the following:

1. The site of the placenta.
2. Placenta praevia.
3. Premature separation of the placenta.
4. Varying degrees of hydramnios.
5. Late extrauterine pregnancy with living and dead fetus.
6. Some tumors complicating pregnancy.—William Snow, M.D., New York City; N. Y. State Jr. of Med., Nov. 1, 1939.

The Usefulness in Clinical Practice of a Knowledge of the Ovulation Date

J. C. PLACAK, M.D.

THE staff of the Brush Foundation under the direction of that eminent investigator, the late Dr. Wingate Todd, is to be congratulated upon the splendid results it has accomplished in determining the time of ovulation in the human female.

In recent years there has been considerable controversy, both on moral and religious grounds concerning the use of contraceptives of various kinds in the prevention of pregnancy, and in preventing the transmission of mental and physical defects.

It would seem that the knowledge of the ovulation date put into practice would answer the many rightful objections to some of the methods used at the present time, and should not be objectionable to the religionists in the effort for controlled pregnancies, the bringing into the world of healthy offsprings.

Since the child is unable to select its parents, or plead for its right to a healthy body, every effort should be made, even by the due process of law if necessary, to bring the child into the world sound and able to compete with its fellows.

The struggle for existence is relentless enough to tax the strength of the most competent without bringing into being those who are handicapped by intellectual or structural defects.

REGULATORY MECHANISM

That there must eventually be some regulatory measures is quite obvious. The increasing demands upon our taxing bodies for funds to care for those afflicted is but one argument in its favor.

Since the beginning of history the regulation of population has been a social measure. Nature's crude and primal method of regulating society quantitatively has been by disease and death. Since the beginning of recorded time, man has sought to regulate his communal group by thwarting nature in some way. His aim has been to modify the population in terms of quality and quantity as required by the exigencies of the time and place. We view with horror in these modern times the killing of the aged, the practice of infanticide and the definite limitation of twin births (in extreme cases) by destruction of the women who bore them. These methods, however, were strongly advocated, and definitely practiced, solely in the interest of group welfare.

Read before the Section on Obstetrics and Gynecology, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

The Author

Dr. Placak, Cleveland, Ohio, is a graduate of the Cleveland College of Physicians and Surgeons, 1903; fellow American College of Physicians; American College of Chest Physicians; Board of Internists; Board of Directors, National Tuberculosis Association; head of division of tuberculosis, Cleveland City Hospital, chief of staff, Mt. Royal Sanatorium; consulting staff, Lake County Memorial Hospital.

There is no question that a knowledge of the ovulation date for the purpose of controlling pregnancy would be extremely valuable in some of the anxiety neuroses and psychoneuroses where there is fear of pregnancy or multiple pregnancies beyond the ability of the mother to bear them. Especially is this true in the low income groups of women who, with large families, are sometimes worried almost to the point of suicide.

Large families coupled with small incomes put severe pressure on parents and increase the interparental strain, leading often to psychoneurotic states.

The effects of rapidly successive pregnancies; the stress and strain upon the mother, and the all too frequent invalidism is unhappily well known to all of us. These conditions do not add social value to motherhood. Proper spacing of children is a very important factor and it should be the indisputable right of each mother to say when her children should be born. I would not undertake to define the ideal interval between births, dependent as it is upon such a multiplicity of factors. However, it is obvious that some regulation is in line with the principles of modern medicine.

Abortions are uniformly recognized as undesirable. They are hazardous, psychically demoralizing, economically costly and socially wasteful. How much more simple and refined is the method now under discussion, the knowledge of the ovulation date in pregnancy control.

Whether mental deficiency should or could be controlled by this method is a debatable question. Mental deficiency is frequently due to environmental circumstances as well as to ancestral traits.

Poverty and large families render parents of subnormal mentality less capable of properly

cultivating their children. Where the deficiency is very great, however, gene transmission seems most probable, control by knowledge of the ovulation date seems necessary.

Strong, intelligent, useful families are becoming smaller and smaller. Irresponsible, diseased, defective parents, on the other hand, do not limit their families. There can be but one result. That is race degeneration. The law of self preservation is as necessary for a nation as for an individual.

When families that send a child to an institution for the feeble minded average twice as large as families sending a child to one of our universities, it is time we not only take cognizance, but also begin to do some constructive thinking.

I regret that lack of time forbids recording a few illustrative cases. However, most of you are familiar with many such from personal observation.

There are numerous conditions both mental and physical where controlled pregnancy should be advocated either temporarily or permanently.

To show the wide range of conditions where control has been advocated, I quote from a report of the Baltimore Maternal Health Bureau, under the leadership of the late Professor John Whitridge Williams. Only cases referred by reputable physicians were accepted at this Bureau and the list represents their reasons for referring patients for contraceptive advice.

Indications

	No.	%
1. STRICTLY MEDICAL:		
(a) Systemic diseases; cardiac disease; nephritis; nephritic toxemias; tuberculosis; pyelitis; severe anemia; hypertension; thyroid disease; diabetes; gall bladder disease; epilepsy, etc.	504	35.16
(b) Nervous and Mental Disease: manic depressives; anxiety neuroses; schizophrenics; mental defectives; constitutional inferiors, etc.	157	13.63
(c) Gynecological: Recent pelvic repair; fistulae; extreme lacerations; repeated abortions, spontaneous or induced; adnexal disease, etc.	53	4.60
(d) Obstetrical: toxemias other than nephritic; repeated difficult deliveries; eclampsia; repeated Cesarean sections, etc.	66	5.73
(e) Orthopedic and Surgical: Tuberculosis of spine or hip; osteomyelitis; fractured pelvis; recent operation; one kidney; kidney stones	31	2.69
(f) Venereal Disease: Gonorrhea; syphilis; central nervous system syphilis	40	3.47
(g) Defects and Deformities: Spina bifida; paralyses of various sorts; congenital blindness; double vagina	6	.52
2. MULTIPARITY: Too many pregnancies or too frequent pregnancies in a short period of time; often combined with general debility, malnutrition, anemia or various other conditions	311	27.00
3. INDICATIONS IN HUSBANDS: Tuberculosis; epilepsy; post-encephalitics; blindness; mental illness of various sorts; lues; criminal, alcoholic, etc.	53	4.60
4. EUGENIC: Repeated defect in children; three with hare lip; three status lymphaticus deaths; family with Friedrich's ataxia; family with numerous psychopaths in institutions	6	.52
5. NOT STRICTLY MEDICAL: Marital disharmony; recent delivery; economic	24	2.08
	1152	100.00

It is not my intention in this paper to discuss all the conditions where control of pregnancy by knowledge of the ovulation date should be applied but to discuss only the more common conditions.

The ravages of syphilis have from time immemorial been with us. Its cost to the community, the suffering it has occasioned need no elaboration in this discussion.

No better illustration of the tragedy of hereditary transmission of disease can be given than that of the Royal family of the Tudors as described by McLaurin in his work "Mere Mortals."

He shows very clearly to what extent the disease infected Henry VIII and his progeny, and speculates intriguingly on the historical probabilities had the spirochete not been operative.

The history of Henry, in brief, was that he gradually became a mass of loathsome infirmities. His legs were covered with festering sores, causing an unbearable stench. He suffered greatly from syphilitic periostitis, and he died in a stupor at the age of 55 after a number of years of personal "savagery" betokening luetic mental degeneracy, during which time he suffered from obsessions, phobias, and notions of divinity. McLaurin assumes that he must have acquired the disease before the marriage to Catherine of Aragon at the age of about 18, for the long record of marital mishaps, so pathognomonic of syphilis begin with the death of Catherine's first born at the age of six weeks. Then came a still born in 1510. A son was born in 1511 who died in six days. In 1513 there was a son who was either still born or died immediately after birth. In 1515, another son was born who died immediately after christening. In 1516 was born "Bloody Mary" whose sickliness throughout life is significant and whose famous portrait, revealing a wizened, lined, and prema-

turely old face, suggests much to the medical eye. Her sole pregnancy, after her marriage to Phillip II is said to have terminated in a miscarriage. She suffered from what Sir Clifford Allbut thought was probably syphilitic keratitis and she died suddenly of what McLaurin believes to have been syphilitic disease of the coronary arteries. The last child of Catherine and Henry, born in 1518, was a still born boy.

The autopsy (really an embalming process) on Catherine revealed what McLaurin feels must have been an aortic aneurysm.

The events above mentioned were indeed a tragedy but a tragedy which is still being enacted even in these enlightened days. One speculates as to what might have happened if knowledge of controlled pregnancy had been then known.

Another controversial problem of which there has been considerable discussion of late is: "shall the tuberculous woman become pregnant?"

Surely during the disease's activity, pregnancy should be proscribed. Here seems to be the ideal situation where practical application of control measures should be applied. It is a well known fact that pregnant women who have tuberculosis are much better during the period of pregnancy; the reason for this being the increased intra-abdominal pressure with a concurrent rise of the diaphragm muscles. This altered anatomy produces rest of the lungs and abeyance of symptoms.

The great danger comes after delivery. Shock, loss of blood, relaxation of the diaphragms, allow in many instances the reactivation of the previously involved areas. Cavities re-open with accompanying absorption of toxin and spread of infection with not infrequent termination of life. However, this is not seen as frequently as it once was on account of control by methods of collapse.

Nevertheless, a pregnancy in a tuberculous woman should be postponed until it can be undertaken with safety to the mother and child.

While one cannot set a fast rule as to when a tuberculous woman can become pregnant, it is safe to say that after health has been restored and a good arrest of the disease obtained, two or three years of normal living conditions must be required before pregnancy should be permitted. Each case must be considered individually.

Considering certain heart diseases, there should be no question of a decision in favor of controlled pregnancies for the welfare of the mother. Again it is essential to realize that each disorder of the heart presents various degrees of severity and that each case must be individually considered.

How much value controlled pregnancy in the eradication of cancer or the breeding out of cancer in families afflicted with this disease is a debatable question. It is doubtful whether control, if practiced, would have any appreciable effect upon cancer morbidity.

It has been suggested, however, that cancer can be bred out of the human race in two generations. Two individuals, both of whom are entirely resistant to cancer, will breed children free from cancer. An individual, susceptible to the disease, when bred to a resistant mate, will have cancer-exempt children. But, because one parent was a potential cancer subject, the children, although themselves exempt, can transmit it to their offspring—if these latter mate with susceptible persons. On the other hand, should they marry cancer-resistant persons, results of such unions will also be exempt. If this thesis be true, then certainly controlled pregnancy would be applicable.

It is in the field of psychiatry wherein lies the golden opportunity for the application of our knowledge of the ovulation period.

We are constantly building institution after institution for the insane, the epileptic, and the mental defective. The cost is mounting into the millions and millions of dollars making the taxpayer's burden increasingly difficult to bear.

In these troublesome times, when we hear so much talk of war with its inevitable destruction of so many fine young men in the prime of life, we should give a great deal of thought to the prevention of bringing into the world those who are unfit to carry life's burden, instead of conserving their lives by the most gentle care, as is done at the present time.

Proper utilization of our knowledge of the ovulation period should certainly, at least partially, solve some of our problems.

10515 Carnegie Ave.

Tuberculosis in Elderly People

It is a well known fact that the tuberculosis death rate is high among young people but many do not realize that it is also very high among old people. There are more cases of tuberculosis among those persons in the twenties than in the teens; more among those in the thirties than in the twenties; and at the age of fifty, for the number of persons living, the incidence of reinfection type of tuberculosis is higher than any other period of life. Every elderly person who has frequent colds, a so-called chronic bronchitis or asthma, should have a careful chest examination. Because of an atypical type seen in older people repeated sputum examination should be made. Due to the frequency of tuberculosis in this group and their intimate contact with children, considerable infection is spread by them.—John E. Nelson, M.D., Seattle, Wash.; Northwest Med., Vol. 38, No. 9, Sept., 1939.

Acute Traumatic Subdural Hematoma Recognition and Management

SAMUEL WOOD WEAVER, M.D.

SUBDURAL hemorrhages are nothing new and are not rare in their occurrence. Although many physicians know of this condition and may have seen or operated upon such cases, it is important to bring the entity to the attention of all physicians in every community so that this common complication will be recognized.

I will speak of acute traumatic subdural hemorrhages as most are traumatic in origin and only at times, does one encounter a spontaneous one associated with a subarachnoid hemorrhage, hypertension or a tumor involving the outer structures, such as a meningioma.

Only in recent years, the literature has contained descriptions of cases that would aid in making us alert for their recognition. Virchow first described "Pacchymeningitis Hemorrhagica Interna Chronica", which is a late stage of an acute subdural hematoma but the pathologist's description did not add much clinically as to the etiology although syphilis has frequently been given the credit by numerous pathologists and is, undoubtedly, an underlying factor in causing vessel fragility.

In view of the fact that this complication frequently follows a trivial blow on the head, one must always keep it in mind and if it is suspected or diagnosed, a plan for operation is imperative at the earliest possible time and a life may be saved by so doing.

INCIDENCE

Figures are not consistent but the average of the number of subdural hemorrhages occurring with all head injuries is higher than one would expect. Leary in his observations of several hundred fatal traumatic cases with intracranial lesions that were significant, found subdural hemorrhages in 10 per cent, that were directly or indirectly accountable for death, disability or mental deterioration. I have roughly estimated that about 7 per cent of the head injuries, coming under my observation, have had subdural hemorrhages, including the mild "concussions" in the group.

Males predominate in my experience about five to one, the right and left sides involved are equal in frequency. There is no age limit and again, referring to Leary's cases, 54 per cent were alcoholic.

Read before the Section on Surgery, Ohio State Medical Association, at the Ninety-Third Annual Meeting, Toledo, Ohio, May 3 and 4, 1939.

The Author

● Dr. Weaver, Youngstown, Ohio, is a graduate of the University of Colorado, School of Medicine, 1930; attending neurological surgeon and attending neurologist, Youngstown Hospital; instructor of nurses—neuro-surgery and neurology; consulting neuro-surgeon, Youngstown Sheet and Tube Company.

PATHOLOGY

To understand the surgical pathology of a subdural hematoma makes the entity much easier to understand and there may be instances where the pathology may determine an important medico-legal question. I would suggest referring to the descriptions of Munro and Merritt[1] and Leary for details as I am more familiar with their cases.

Acute traumatic subdural hematoma refers to a specific entity as indicated by the name where there is usually trauma followed by hemorrhage into the subdural space, i.e., outside of the pia-arachnoid and inside the dura and skull. A vessel, usually a vein, is ruptured and if the pia-arachnoid is torn, cerebro-spinal fluid is often mixed with the blood. Munro[2] believes most, if not all, start as a mixture of blood and cerebrospinal fluid and develop either into a solid clot at the one extreme or a collection of fluid with a high protein at the other.

Munro and Merritt in reporting a series of 105 cases have classified subdural hemorrhages into three types, all of which merge into one another and vary according to the age and the amount of cerebrospinal fluid in the mixture with the blood.

The first type of hematoma is that of a solid clot or "currant jelly" consistency, which is the more classic form that is not an expanding lesion.

The second is a mixed type which has more cerebrospinal fluid present and remains as a chocolate colored fluid or may contain a few small clots. Later, these are encapsulated with a thick wall on the dural side and a very thin neo-membrane over the cortex of the brain. This type, they consider an expanding lesion up to about three months and explain its expansion on the theory that the blood and cerebrospinal fluid mixture containing a high protein is diluted by the cerebrospinal fluid in the subarachnoid space by passing through the pia-arachnoid, the latter

acting as a dialyzing membrane and the fluid acting by osmosis. This theory is supported by Gardner,[3] Zollinger and Gross[4] and others and explains in part, the latent interval of symptoms that is evident in many cases.

The third is fluid in nature, containing no clots, but is often xantho-chromic and high in protein content. I have had several of this type when the protein was over 800 mgms. per 100 cc. of fluid (Dennis-Ayer Method[5]). All of them became symptom free following the removal of the fluid and in a few instances, it was apparent that the patient might die if the fluid was not removed. The dura takes on the burden of organization and attempts to remove the hematoma and thus forms a membrane which varies in thickness according to the age of the hematoma. This starts by the throwing out of fibroblasts within two to four days after fibrin has been deposited. The neo-membrane over the cortex and pia-arachnoid is not adherent as it is on the dura and is very thin in consistency. A subdural hematoma is never absorbed by the dura so remains unless removed surgically.

ETIOLOGY

While the automobile is responsible for a large percentage of subdural hemorrhages, let me call your attention to 50 cases coming to necropsy, reported by Leary,[6] where only three had definite automobile histories. The remainder consisted of two, who fell on the ice; fourteen fell on the floor (two from cots), five fell downstairs, five were struck by falling objects, two in relation to tumors, one epileptic, two diagnosed as post-traumatic psychoses and sixteen had a poor or inadequate history on injury.

The most common cause for subdural hemorrhage is the rupturing of a cortical vein or a bridging vessel from the cortex to the dura, which are frequently seen along the Sylvian veins and toward the base. Occasionally, one sees a bleeding venous sinus but this is usually in conjunction with a fractured skull directly over the sinus and rarely, according to LeCount and Apfelbach,[7] when the hemorrhage is of a contra coup nature. Fractures of the skull do not necessarily occur with subdural hemorrhages and one must not falter on the diagnosis when a fracture is not present. Very few of my cases have had fractures of the skull.

Alcoholism certainly predisposes to the condition, most probably, due to the repeated head injuries received when the inebriated person falls, most frequently backward, striking the occiput.

SIGNS AND SYMPTOMS

To understand the signs and symptoms, it is necessary to keep in mind that they are often superimposed upon disturbance of the brain by a concussion or actual contusion or laceration of the brain. There may be injury to both hemispheres and several areas, which not only makes the diagnosis difficult but often impossible without exploration.

In an effort to simplify, I will mention the so-called "classical" syndrome and contrast with the more "atypical" forms giving illustrations of each type.

The "classical" are known to almost every physician, even though the preoperative diagnosis may have been an extra-dural hemorrhage, which simulates the former almost identically. There is a history of head injury or signs of it on the scalp or face and the patient is often "knocked out" or "dazed" for a varying time, which may be seconds or minutes or hours. Following this, the patient has a headache and frequently, vomiting. There is sudden or progressive stupor and obviously, something is wrong. This may occur several times in cases of subdural hemorrhages with stupor alternating with conscious intervals until finally, he can no longer be aroused. This point is, possibly, the origin of the idea many laymen have that they should walk the patient around, slap the face, etc., to keep them awake and out of stupor. I have seen many instances where the patient is practically exhausted because of this fear. It is wise, however, to arouse the patient at intervals when stupor is suspected. There is present some localizing sign such as a larger pupil on one side; weakness of one side of the face, an arm or leg or all of them. Only rarely is there a complete flaccid paralysis present which is more commonly seen with extradural hemorrhages, whereas, spasticity is common. If the patient is not operated, he is apt to die rather soon (24 to 48 hours), since few survive to become chronic. The patient may remain unconscious from the onset of the injury and show the same signs. The following cases illustrate:

CASE REPORTS

CASE 1: W.J., colored male, aged 32 years, who was admitted to the Youngstown Hospital, October 19th, 1935, with a history of having been intoxicated and striking the back of head after falling to the floor, all of which rendered him unconscious. He was taken home and recovered except for a "hang-over" headache, until one week later, when he suddenly slumped to the ground unconscious without having a convulsive seizure. After five minutes, he resumed activity and was all right except for frontal headache. October 17th, 1935, three weeks after injury, he returned from work and went to bed at three-thirty in the afternoon. At three o'clock, the following morning, it was discovered he could not be aroused so he was sent to the hospital. Neurological examination showed a semi-stuporous negro, who would answer simple questions relating to everyday conversation but continued to fall asleep and fumbled and picked at the bed clothing. There was a weakness of the left side of the face and left leg with apparently normal sensation. The left knee jerk was hyperactive and bilateral Babinski signs were present. Otherwise, nothing of importance. Because of

the clinical history and appearance of the patient with localizing signs, he was operated under avertin anesthesia, the right temporal region being explored. No hemorrhage was found but there was marked bulging of the cortex through the bony opening. Due to a disagreement of diagnosis, he was returned to the ward but he did not regain consciousness. The following morning, he was re-operated under local anesthesia, exploring the left subtemporal region and a large subdural hematoma was removed and he improved, making an uneventful recovery.

CASE 2: R.L., white male, aged 58 years, had a history of being struck on the head with a piece of ice four or five months previous and retaining a chronic headache. Ten days before admission to the hospital, he fell on the ice striking his buttocks. After this, he complained of more headache and three days prior to admission, he started to act "queer" and became mentally confused. This progressed into more irritability and restlessness followed by semi-stupor. Neurological examination showed the patient in a semi-stuporous state answering some questions and dropping off to a snoring sleep. There was a motor weakness of the left arm and leg with generalized twitching, more often on the right side. The reflexes were sluggish on the left side and no pyramidal tract signs were present. The pupils were equal and reacted to light. Spinal fluid earlier in the day showed an initial pressure of 210 mms. of water, in the horizontal position, with 10 lymphocytes and a negative Wasserman. He was operated under avertin anesthesia, exploring the right subtemporal region first and only a small amount of yellowish fluid and a small clot was found. This was completed and the left side was explored, exposing a very large subdural hematoma having a thick adherent capsule on the dural side and a thin neo-membrane over the cortex encapsulating about three ounces of "chocolate" colored semi-fluid material. The patient regained consciousness within 24 hours and made an uneventful recovery.

DISCUSSION

Both cases had the subdural hemorrhage on the same side as the localizing signs, contrary to expectation, which merits a few words. It is believed that the soft hematoma spreading over the cortex does not cause as much localized pressure as the opposite cortex being forced against the skull, which may give the false impression. Another explanation is the pressure on the brain stem when the brain is pushed over by a large hematoma. Therefore, if the hematoma is not found where suspected and if the patient's condition is not too critical, the opposite side should always be explored. In about 50 per cent of the cases, a dilated pupil on the side of the hemorrhage, will aid in localization.

The "atypical" class of subdural hematoma presents a more difficult problem of diagnosis and surgical judgment, especially, the cases of slow recovery that are out of proportion to any neurological findings of significance. The signs and symptoms vary widely and there are no set principles but there are symptoms that often arouse suspicion and the diagnosis is made at the time of operation. This, at first, sounds radical but in careful hands of a surgeon, who knows something about cranial surgery, the risks are not too great. Certainly, a surgeon would not allow a suspicious acute appendix to progress to the point of rupturing rather than doing a prophylactic removal, so why should a suspected subdural hematoma be allowed to cause a death because no attempt was made to confirm it or remove it if present.

Again, this class of patients usually have a traumatic history of a fall, striking the head (on ice, bathtubs, down stairs, from a bed or while intoxicated). For instance, a housewife, leaning over a sink was not aware that the cupboard door above her was open and as she straightened up, she struck the top of her head on the door and a few hours later, she was found on the davenport unconscious. These patients often disregard these bumps until a constant headache results or they become "dizzy" or faint. Many in this class do not lapse into stupor and have lucid intervals although, they do gradually show drowsiness and mental confusion, which may occur several days later. Jacksonian type convulsions may occur indicating a subdural hemorrhage but the percentage of patients having convulsions is very small yet it is an extremely important sign when present. They usually have urinary or fecal incontinence. If a spinal puncture is done early, as it should be with head injuries of patients who are not in shock, one usually finds the pressure elevated, ranging from 180 mms. to 300 mms. of water or over. The fluid is blood tinged in varying amounts and sometimes, quite bloody if there is contusion or laceration of the brain present. If no spinal puncture is done and the intracranial pressure is high, then one may easily mistake the diagnosis as the symptoms suggest a hematoma. The fluid may be perfectly clear and under slight or no increase in pressure (over 180 mms. of water). Repeated examinations should be done as localizing signs will usually become evident such as an enlarged pupil, facial weakness, aphasia or weakness of an arm or leg or even just a positive Babinski sign. The pulse becomes slow and bounding only when the intracranial pressure is increased.

The following are "atypical" cases:

CASE 1: H.K., white male, aged 47 years, entered the hospital November 23rd, 1938. following an automobile accident. He had a brush burn and lacerations in the region of the left eye and forehead and a large scalp laceration in the occiput, which was sutured. There was bleeding from the left ear. When admitted, he responded fairly well but within an hour, was restless and uncooperative. The spinal fluid pressure 48 hours later was 194 mms. of water and the fluid was very bloody but did not coagulate. The patient remained uncooperative, irritable and semi-stuporous, although he would open his eyes and mumble. He was incontinent. On December 1st, 1938, seven days later, he appeared to have

questionable weakness of his left arm and face and he had not improved, so, under ether and local novocaine anesthesia, the right subtemporal region was explored. The dura was tense and slightly yellow and the brain was not pulsating. When the dura was opened, a large amount of straw colored fluid escaped under pressure and about two or three ounces was removed. The protein content was 675 mgms. per 100 cc. A thin neo-membrane was present encapsulating the fluid. There was definite depression of the brain away from the dura. The brain pulsated immediately after removal of the fluid so a small rubber drain was inserted over the temporal lobe to the base of the middle fossa to allow the additional fluid to escape, then the wound was closed. His post-operative condition was fairly good but in view of the definite pathology, the left side was not explored. For two days, he was more alert and answered some questions but remained uncooperative and displayed a mean disposition. Three days after operation, he developed convulsive twitchings of the left face and hand lasting two to three minutes which recurred several times. He often choked and coughed very hard, becoming cyanotic and struggling.

He was again stuporous on the fifth post-operative day so a left subtemporal exploratory was done with the idea of re-exploring the right side if nothing was found. A larger subdural hematoma was found on the left side with the same type of capsule except the dural membrane was thicker. The orange colored fluid was removed and the wound closed. This fluid had a protein content of 725 mgms. per 100 cc. His condition improved remarkably for four days, then remained the same. Some days, he was bright and talkative but other days, he was not responsive and would only stare at the people around him. Because of the poor improvement four weeks after the first operation and three weeks after the second, I re-explored the right side and to my chagrin, he had a large subdural hematoma consisting of a collection of yellowish brown fluid in the subdural space with a thin neo-membrane capsule. The brain was markedly depressed and moulded from pressure and the cortex was adherent to the dura along the lower portion of the Sylvian veins. The protein content of the fluid was 868 mgms. per 100 cc. His general condition improved but the mental confusion and irritability continued until the thirteenth postoperative day when I decided to get him up in a wheel chair and from that time, he made a dramatic and sudden recovery leaving the hospital three days later and has remained perfectly all right since except for an occasional convulsive seizure, and these have been present about twelve years.

This case demonstrates a very unusual condition where recovery followed a third operation. I am not sure if the third subdural hematoma resulted from a ruptured vein during the choking spells or if the first hematoma reformed or failed to completely drain, but the protein content in the second hematoma was much higher than the first one on the right side. Post-operative hemorrhage was a possibility but did not seem likely since there was a drain in the wound for 48 hours and there was no solid clot which one might expect with the pia-arachnoid intact.

CASE 2: F.M., white male, aged 51 years, was admitted to the hospital November 28th, 1938, with a history of being in an automobile accident. He was knocked unconscious and remained so for several hours. There was no skull fracture. A spinal puncture had been done showing a normal pressure and the fluid clear. There seemed to be less activity of the left leg and face. After 48 hours, the patient was still "groggy" and was drowsy all the time. There was consistent mental confusion and disorientation. The neurological examination showed a definite left facial, left arm and leg weakness and the drowsiness continued. Under ether and local anesthesia, a right subtemporal exploratory decompression was done and dura was found to be very tense, not pulsating and a yellow color. When the dura was opened, a large amount of "lemon" colored, thick fluid escaped under pressure and a thin capsule was noted with a thin neo-membrane over the cortex of the brain and beneath the dura. Both were easily removed. About two and one-half ounces of fluid was removed, having a protein content of 810 mgms. per 100 cc. and after removal, the brain started to pulsate normally. The wound was closed and the patient was returned to bed. There was definite improvement mentally and the paresis cleared up but he was still disoriented and confused. On December 15th, two weeks post-operative, he became more stuporous and looked very bad but there were no abnormal neurological signs present. On December 18th or 20 days after injury, the left subtemporal region was explored and a larger hematoma of the same nature was found except this fluid had a protein of 761 mgms. per 100 cc. and the dural capsule of the hematoma was thicker and more adherent. Following the second operation, he improved physically but he was mentally confused for about ten days and after this, he made an uneventful recovery and was discharged from the hospital twelve days after the last operation. He returned to a responsible position four weeks later.

DISCUSSION

The first case was definitely a diagnostic problem. Both cases were bilateral. When the "lemon" or "orange" colored hematomas are found, I believe there should be a bilateral exploration if the patient's condition allows it.

The diagnosis is not difficult in the so-called "classical" cases but it is often very difficult or impossible in the "atypical" class, many of the latter demanding exploration to decide. Any patient with a head injury, who does not improve within four to six days, should be strongly suspected of having a subdural hematoma, providing extreme laceration or contusion of the brain has been ruled out. There are times exploration is justified even where lacerated brain seems definite since subdural hemorrhages are apt to form.

Treatment is always surgical removal, either a unilateral trephination in case of a large solid hematoma or "chocolate" fluid type and bilateral exploration with the liquid type. If no hematoma is found on one side, explore the opposite side. I prefer the "Cushing Subtemporal"[8] approach, which is a vertical incision, starting anterior to the external auditory meatus and extending upward about 8 cm. to 10 cm. The galea is grasped with small hemostats and bent at right angles to control bleeding. The temporal fascia and

muscle are split in the same direction and retracted with a Jansen mastoid retractor or a thyroid retractor. A burr hole is then placed in the squamous portion of the temporal bone with a Hudson drill and enlarged with a bone cutting rongeur. An opening must be made large enough to easily admit a brain spoon for exploring the surface of the brain, otherwise, a subdural clot may be overlooked as I have seen happen. When enlarging the bony opening, it is wise to proceed toward the posterior aspect so that the middle meningeal artery is avoided and if it is accidentally torn later, the operator has space enough to easily control the bleeding. Placing a brain spoon on the meningeal artery until it can be ligated with a silver clip or silk suture is a very good trick. Bone bleeding is easily controlled with bone wax and the dural vessels with silver clips or silk. Cortical bleeding is best controlled by a small piece of temporal muscle placed on the bleeding point, covered with a hot cotton pledget and allowed to coagulate, then remove the cotton very carefully. The dura is opened in a star-shaped fashion and left open. The hematoma in the acute cases is best removed by using a gentle suction apparatus such as a tonsil suction machine and a glass curved tip with a smooth end. A drinking tube can be used in an emergency. After bleeding is absolutely controlled, the muscle, fascia, galea and skin are closed in layers with interrupted No. 7 silk sutures, tying three knots and cutting the excess silk close to the last knot. Silver foil or an alcohol dressing is then applied.

Cone and Penfield[9] have used a myoplastic craniotomy approach which has definite advantages and in their hands, is undoubtedly successful but I find that it is more time consuming and in the traumatic cases, time is an important consideration. In addition, the decompression type of operation allows for some post-operative cerebral edema.

SUMMARY

1. Subdural hemorrhages are common and should be recognized or suspected as a complication following head injuries.

2. Etiology and pathology have been mentioned.

3. "Classical" types are not difficult, if one is mindful of the syndrome, whereas, the "atypical" types are often diagnosed only by exploratory trephine. Case reports have been given to illustrate.

4. Operation is often a life-saving procedure and the only treatment for subdural hemorrhages. The technique has been briefly described.

5. Bilateral exploration is often necessary with the liquid type of subdural hematoma and should be done routinely if the patient's condition permits.

812 Home Savings & Loan Building.

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Provocative Diathermy

The provocative diathermy, as we have used it, has been abdomino-sacral in every case, with the duration of the treatment being twenty minutes. It can be reasonably expected that all local diathermy treatments result in an acceleration of local metabolic processes through stimulation of cell activity and hyperemia. The physiological effects produced by medical diathermy are increased circulation, sensory and motor nerve sedation, and bactericidal action. The therapeutic uses of the diathermy treatment are relief of pain and spasm and the promotion of nutrition and absorption.

It is due to this fact, that medical diathermy promotes absorption, that a sedimentation test performed one hour after the provocative diathermy treatment may indicate the presence of infection that is not quiescent and so warn against operation that may result in a stormy post-operative course. In our clinic, on the day previous to operation, all cases of non-urgent pelvic inflammatory disease are given the provocative diathermy. One to two hours later, a blood sedimentation test is performed. If the rate has increased significantly over the previous rate or is over 18 mm. for the hour, operation is postponed. In such a case the provocative diathermy followed by the sedimentation test is repeated at two day intervals, until such time when no marked increase in the rate is observed. Then, and only then, is operation performed.

For more than three years that this practice has been adopted in our clinic there has been a decrease in the morbidity as well as a decline in the number of cases of stormy convalescence following elective pelvic operations.—Michael S. Popin, M.D., Bridgeport, Conn.; Jr. of The Conn. S. Med. Soc., Vol. 3, No. 11, Nov., 1939.

Tuberculous Endometritis: Report of a Case

HAROLD MEADE WILEY, M.D.

TUBERCULOUS endometritis with early involvement of one tube is rare enough to permit reporting.

CASE REPORT

Mrs. L. F., a white nulliparous woman, age 37, married eight years was referred on May 9, 1938, because of sterility and an intermittent amenorrhea lasting as long as five months. She also complained of dizziness, nausea, mild constipation.

Present Illness—The onset of the menstrual irregularity was five years ago, when a hypomenorrhea became evident. The hypomenorrhea continued into an amenorrhea that would last from four to five months at a time. The acute onset dates from January 1, 1938, when she menstruated for one day and then ceased to menstruate until April 16, 1938, when she menstruated for four days. The present history of other systems is entirely negative except for the complaints given.

Past History—The early child life was normal in all respects. Menarche occurred at 14 years. The menacme was at first normal with regular menstruation occurring every 28 days. The flow was profuse, contained clots and lasted for seven days. Dysmenorrhea was a complaint up to 1925. In 1925 she had a pleural effusion and a straw-colored fluid was obtained on aspiration. Cultures or guinea pig inoculations were not done. The patient was given a "rest cure" for some time. Convalescence was uneventful. In 1933 hypomenorrhea became evident and the rest of the menacme was characterized by periods of amenorrhea already referred to.

Examination—The weight is 154 pounds; height 66 inches; pulse 86; temperature 97.8; blood pressure 120/86; Wasserman negative; sedimentation rate normal; red blood count 4,950,000; white blood count 7,550; Hb. 98 per cent; smear contains normocytes, neut. 75 per cent, lymph. 22 per cent, monocytes 3 per cent, eosinophiles 1 per cent. Urine contains no albumen, no sugar and an occasional cast. Basal metabolic rate is plus 10. The skin, fat distribution, eyes, ears, nose, throat, thyroid, chest, heart, and abdomen were normal.

The vaginal mucosa has the velvet feel of pregnancy but there is no discoloration. The cervix is soft. The fundus is in normal position, freely movable, slightly enlarged and soft. The adnexa are negative.

Rectal examination reveals a reddened mucous membrane which bleeds easily. The crypts are reddened. No fissures or fistulae. Extremities—normal. Neurological examination—negative. Impression—early pregnancy. Cryptitis.

A negative Friedman test made the diagnosis of pregnancy less likely. A Rubin test revealed patency of the tubes. An edometrial biopsy done at this time was studied by Dr. Wasserman of the Jewish Hospital, who found a giant cell with atypical necrotic tissue, but no definite tubercles.

Submitted May 3, 1939.

The Author

● Dr. Wiley, Cincinnati, Ohio, is a graduate of the University of Cincinnati College of Medicine, 1929; member Cincinnati Obstetrical Society; clinician, department of gynecology, University of Cincinnati College of Medicine.

Sections stained with Ziehl-Neelson's stain revealed no acid-fast bacilli. Examinations were then made for more evidence of tuberculosis. X-ray of the chest was entirely negative. A curettage revealed caseous material in the uterus, and the sections show an almost complete destruction of the glands and epithelium with many tubercles and giant cells. Pigs killed three weeks after inoculation with this material showed tubercular lymphadenopathy, abscesses in the liver and the spleen. The biopsy from the cervix was negative.

Later under ether anesthesia, chosen deliberately, a bilateral salpingoophorectomy and panhysterectomy were done, preceded by a cystoscopy and bilateral ureteral catheterization to obtain urine specimens for pig inoculation. The urinary tract findings were negative. At operation the omentum was found adherent in places to the peritoneum. There was no fluid. No tubercles were found on the peritoneal or visceral surfaces. The left tube was adherent to the posterior layer of the broad ligament. The operation was comparatively easy; but, before peritonealization was done, treatment for shock had to be given. The patient has made, with physical therapy and rest treatment, an uneventful and complete recovery.

Pathologist's Report (Dr. J. W. Leichliter)—"Gross examination: The specimens consist of a uterus with both tubes and ovaries. The comparatively small uterus is irregular in shape, the left side being somewhat larger and more rounded-appearing than the right. This mass of tissue is grayish-yellow on section, bulges above the cut surface, and is believed to be a degenerated fibroid.

The endometrium is peculiarly ragged, is quite granular and appears to be somewhat necrotic. In the right fundus there is found some yellowish material resembling caseous tissue.

The moderately enlarged right ovary shows on section numerous hemorrhagic cysts and a small corpus luteum. The slightly enlarged ovary on the left contains likewise a corpus luteum cyst, a lutein hemorrhagic cyst and a large area of hemorrhage at one pole, apparently within a cyst. Both tubes are apparently normal. No evidence of acid-fast infection is found in either adnexa.

Microscopic Examination: There is no microscopic evidence of tuberculosis in either ovary. Sections of the right oviduct show a small lumen and a moderately thickened wall, but there is no evidence of tubercle. The left oviduct possesses

very little epithelial lining. This is replaced by granulation tissue carrying tubercles with central giant cells. An isolated tubercle is found at some small distance in the wall. There are also some scattered lymphocytes and a few polys in the wall.

The endometrium presents a condition of marked necrosis and caseation with many scattered giant cells. No normal endometrial gland tissue is found. Deep in the tissue there are tubercles with central giant cells. Smears prepared from the yellow caseation found in the fundus show acid-fast bacilli of typical morphology. Separate sections of the uterine wall shows a complex fibro-muscular structure characteristic of fibroid.

Diagnosis: Tuberculous endometritis. Simple uterine fibroid. Benign hemorrhagic ovarian cyst. Degenerating corpus luteum. Unilateral tuberculous salpingitis".

DISCUSSION

Some idea of the incidence of female genital tuberculosis may be obtained from the report of Schlimpert[1] who recorded an incidence of 2.1 per cent in a series of 3500 autopsies. Jameson[2], reporting from a large series of necropsies, gave the incidence as 1 per cent. Endometrial tuberculosis, however, is rare. Diethelm[3] observed that out of a series of 3500 gynecological specimens genital tuberculosis was found in 0.85 per cent and the case he reported was the only case of tuberculous endometritis found in that group. In a perusal of the histories of operated and autopsied cases admitted to the gynecological department of the Cincinnati General Hospital for the last 20 years, only 10 cases of genital tuberculosis could be found. In none of these cases was the endometrium involved. This, however, is not the experience of others. Greenberg[4] found involvement of the uterus in 72 per cent of 200 cases of tuberculous salpingitis and Bell[5] states in his textbook that tuberculous salpingitis extends downward to the endometrium in 25 to 30 per cent of cases. Norris[6] states that he never encountered a case in which the uterus and the tubes were removed for tuberculous salpingitis without finding evidence of similar infection in the endometrium. Frank[8] is of the opinion that tuberculosis of the uterus is rarely primary, and proposes certain postulates for such a diagnosis.

It is difficult to interpret such a varied experience among gynecologists with the pathogenesis of genital tuberculosis. The 10 cases that I collected contained three cases of miliary tuberculosis that showed, at autopsy and in the sections, no evidence of endometrial tuberculosis. Many of those who have reported cases do not state the method of examination used to prove the incidence of endometrial involvement in their cases. The rarity of endometrial tuberculosis precludes a knowledge of its modus operandi, a rarity that may prove to be more apparent than real when endometrial biopsy becomes the sine qua non for the elucidation of gynecological complaints. The association of uterine fibroids with genital tuberculosis, a finding in this case and the experience of others[7], implies a significance entirely negated by Frank[8]. Indeed, the pathogenesis of genital tuberculosis is obscure.

Endometrial biopsy and curettage offer the only means for a preoperative diagnosis. Claiming ability to diagnose genital tuberculosis from the history and from the evidence gathered from a vaginal examination is presumptuous. The histological picture in the early stage shows tubercles lying in the stroma between the glands and under the surface epithelium. The tubercle is composed of epitheloid cells, believed to be formed from monocytes, enclosing giant cells containing oval nuclei. Progression of the disease and increased sensitivity to tuberculo-protein is manifested by confluence of tubercles, round cell infiltration, destruction of glands, loss of surface epithelium and caseation. The myometrium may also be invaded. Martin[9] demands that the histological criteria for the diagnosis be supplemented with a demonstration of tubercle bacilli; but, as pointed out by Frank[8], this is an unwarranted postulate. Guinea pig inoculation reveals unequivocal evidence and should be used to clinch the diagnosis.

Difficulty with the interpretation of the tuberculin test in the adult vitiates its value as a diagnostic and prognostic procedure in this disease. The blood changes offer little aid in diagnosis. The sedimentation rate can be used as an index of the progression or the regression of the disease. The monocytes are increased when there is extension of the disease and the formation of new tubercles. Increase in lymphocytes may mirror regression of the tuberculous process. The monocyte-lymphocyte ratio is normally 1 to 3. A rise in this index takes place when monocytes are being formed to be converted, as some think, into the epitheloid cells that make up the tubercle. A fall in this index shows an increased demand for lymphocytes and implies a decreased sensitivity to tuberculo-protein and a regression of the disease.

The cultural characteristics and rabbit virulence of the organisms obtained from the endometrium have not been determined so as to differentiate human and bovine types. The comparatively high incidence of genital and peritoneal tuberculosis in Germany, where milk is not pasteurized, is suggestive that the bovine type may be the infecting organism in some cases of genital tuberculosis. Could the difference in pathogenesis be accounted for on this basis? Climate, parity, social status, allergy and concurrent infections are, probably, conditioning etiological factors but have not been statistically correlated. The incidence of the disease is highest between 20 and 30 years of age.

The therapy brought to genital tuberculosis

has not been standardized. Conservatism and radicalism are the propositions on which arguments are built and rebuttals made. The votaries of conservative treatment argue: that the criteria for cure are equivocal at best; that conservatism needs no defense in the treatment of other types of tuberculous infections; that such conservative measures as absolute rest, heliotherapy and X-ray have an established place in the treatment of this disease; that the operative removal of apparently infected organs does not assure complete removal of the infection and the removal of all organs that may become involved later is not logical; furthermore, the operative mortality is high.

The proponents of radical operative procedures argue: that preoperative diagnosis is very difficult, at times impossible, making results from conservative treatment difficult to interpret; that an impending extension of the focus makes conservative treatment very radical indeed; that the removal of tubercular foci is rational in a patient sensitized to tuberculo-protein, since the foci supply the allergen for that sensitivity and since the sensitivity contributes as much to the pathogenesis of the disease as the infection itself.

CONCLUSION

A case of tuberculosis of the endometrium is reported. The case is of interest because of an antecedent pleural effusion 13 years ago that has completely regressed; because of no demonstrable concurrent tuberculous lesions elsewhere in the body; because of a beginning unilateral salpingitis arising from a tuberculous endometritis that had progressed to caseation, ulceration and destruction.

Endometrial biopsy was the pivotal procedure upon which the success of this case depended. Radical surgical procedures apparently have proved successful in this case.

1027 Union Central Bldg.

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Amebiasis

Alton Oschner estimates that there are between 500,000 and 1,000,000 cases of amebiasis in the United States. Another authority estimates that 5 to 10 per cent of the population of the United States have amebiasis. Only a small percentage of the patients have amebic dysentery. I quote in part a personal communication from Dr. Oschner of the Department of Surgery of Tulane University: "I can state that 10 per cent of the cases admitted to our clinic with symptoms of chronic appendicitis have amebic cysts in their stools and completely recover following the use of emetine without the necessity of resorting to surgery."

Craig stated that during the 1913 epidemic of amebic dysentery in Chicago many of the fatal cases had been operated on owing to the similarity of the symptoms present to those of acute or chronic appendicitis, and that the results of operation in those cases were often disastrous. In an analysis of 60 cases of amebic dysentery, Craig found that no less than 16 had appendicitis. Since it is sometimes difficult to find the cysts in the stool, Oschner deems it well to administer emetine in one grain doses daily for ten days in all cases where there is the slightest suspicion of amebiasis.

The pain of an incipient right inguinal hernia is sometimes misleading and is sometimes difficult to differentiate, except by the relief experienced by a night's rest and the return of the pain on exercise as the day passes.—A. J. Mooney, M.D., Statesboro; The Jour., Med. Soc. of Georgia, Vol. XXVIII, No. 11, Nov., 1939.

Anthraco-Silicosis

Statistics from White Haven Sanatorium, Pennsylvania, reveal that tuberculosis of the intestine was found in only 19 per cent of the cases where anthracosilicosis and pulmonary tuberculosis were associated as contrasted to 51 per cent where the pulmonary tuberculosis was uncomplicated by silicosis. This may be due to the extreme pulmonary fibrosis present in these cases preventing the spread of the tubercle bacilli. In early or moderately advanced cases of silicosis the rate of intestinal involvement is the same as in the cases which do not have silicosis. —Charr, R. and Cohen, A. C., Am. Jour. Med. Science, 1938, 196.

Early diagnosis of tuberculosis is good economy. To keep an early case in a sanatorium for a few months may cost a few dollars. To keep an advanced case for several years may cost many thousands of dollars.—Ohio Public Health, June, 1939.

Of all allergies, the commonest is a sensitivity to situations, both social and psychic.—Fetterman.

Clinical Experience in Skin Testing With Homologous Protein For Determination of Active Tuberculosis

PHILLIP T. KNIES, M.D.

THE determination of tuberculous activity in the absence of the ordinarily pathognomonic bacteriological and radiographic evidence of the disease is at times most difficult, whether the problem relates to a patient without a demonstrable lesion as basis for his illness, or to the identification as tuberculous of an obvious lesion of uncertain etiology. This difficulty may at times surpass the value of all immediate studies, including clinical condition, bacteriology, radiography, and hematology, and may indeed at times be solved only by observation over long periods of time.

The usefulness of a test based upon a humoral mechanism for the determination of tuberculous activity has long been appreciated, and many attempts have been made to adapt one or another form of tuberculin administration to this end. The results have in general not supported the hopes, however, and even carefully quantitated tuberculin tests have proved little more useful than the more standard dilutions, whether of O. T. or of P. P. D. The greater purity of the latter product should permit a more accurate quantitation of tuberculin sensitivity than is possible with O. T.[6], yet the use of tuberculin for the determination of tuberculous activity is not feasible, except perhaps as suggested by Stewart.[9] Thus the discovery of a positive reaction to tuberculin in a patient known to be a negative reactor previously must indicate, within the limits of accuracy of the test,[5] tuberculous sensitization within the interval between the two examinations. If this interval be less than the usual healing time of tuberculosis, and if the previous testing did not result in an acquired hypersensitivity to tuberculin, an active infection may be inferred at the time of the positive test. This involves the frequent and complete tuberculin survey of a given suspect, or of the group under observation, an uncertain and expensive undertaking, though possibly the best solution of the problem to date using tuberculin alone.

GRUSKIN'S TEST

Extremely interesting, therefore, was the announcement by Gruskin[2,3] of a test stated to be usable as a criterion for the detection of tuberculous activity as opposed to tuberculous infection, employing by skin testing methods a humoral mechanism stated to depend upon the action of an homologous protein as antibody in the detection of antigen formed in the host during the active phase of tuberculosis.[3] A postive test was said to consist in the formation of pseudopods at the site of the intradermal injection of the testing material. A brief consideration of the theoretical background, the method of preparation of the testing material, and of its control, and the technic of the administration and interpretation of the test were reviewed by its author.[3] Subsequent trade literature has also carefully described the administration and interpretation of the test.[2]

The testing material or "antigen" has been produced experimentally for human, bovine, and avian strains of tubercle bacilli,[4] and is now available commercially in human and bovine forms* with material for control tests consisting of a derivative of amniotic fluid adjusted in pH, saline concentration, and nitrogen content to correspond with the antigenic material. The technical details of the administration of the test will be considered in a later section.

In view of the potential usefulness of such a test for the detection of tuberculous activity, the present study was undertaken in an attempt to correlate the results of the test performed as recommended with the clinical status of the patients as otherwise determined in terms of tuberculous activity.

The two groups of persons of approximately equal number, age, and social status were selected, the one consisting of patients with unquestionably active tuberculous disease, pulmonary or otherwise; the other composed of persons under study for various illness, in whom the presence of tuberculous disease could be ruled out within the limits of clinical error. In the selection of the group of tuberculous patients, the usual criteria of activity were satisfied,[8] including in most cases the identification of the tubercle bacillus in sputum, discharge, or exudate by direct cultural or inoculation methods, or the microscopic patho-

The Author

● Dr. Knies, Columbus, Ohio, is a graduate of Ohio State University College of Medicine, 1931; associate, American College of Physicians; attending physician at Starling Loving University and St. Francis Hospitals; assistant clinical professor of medicine, Ohio State University College of Medicine.

Submitted May 17, 1939.

logical diagnosis of tuberculous activity on biopsied tissue. In the few instances in which bacteria were not demonstrable, tuberculous activity was inferred on the basis of radiography, blood sedementation, the clinical background of the patient, and blood cytology, including in some cases, studies by supra-vital staining technic.

SELECTION OF PATIENTS

The selection of the non-tuberculous series, as might be anticipated, was the more difficult procedure, for it must of course be remembered that the diagnosis of the absence of active tuberculous disease from the human body is at best an uncertain procedure with our present diagnostic criteria. A priori, no case with demonstrable tubercle bacilli was considered inactive, but all other criteria were variable in view of the wide scope of pathology offered by this group of patients. All cases were hospitalized, and in each instance after careful study and application of the usual criteria, it was considered that the patient had shown no evidence of active tuberculous disease. Residua of previous tuberculous infection, in the form of calcification, and even infiltration of fibrotic and calcific character were present in several instances. The inevitable group of patients in which no conclusive opinion could be reached as to tuberculous activity or inactivity was not included in either series of cases.

Thus, 55 patients in whom active tuberculous disease, principally pulmonary, was known to exist were examined with both human and bovine antigens. Of these, 52, or 94.5 per cent responded positively to one or both antigens (27 cases to both antigens, 16 cases to the human antigen alone, and nine cases to the bovine antigen alone). Three cases, or 5.5 per cent showed no reaction to either antigen. Of these, two patients had undoubtedly active tuberculosis with positive sputum and rapid sedimentation rate. The third case was one of tuberculous spondylitis, without pulmonary disease, but with rapid sedimentation and rapid bone disintegration. No explanation is offered for these inconsistencies, and re-examinations have not been made.

Fifty patients were examined with both antigens in whom reasonable possibility of tuberculous disease appeared to have been excluded. Negative reactions were obtained to both antigens in 42 patients, or 84 per cent of the series. Eight cases, or 16 per cent showed positive results, two to both antigens, four to the human antigen alone, and two to the bovine antigen alone. The two cases reacting to both antigens included one of disseminated lupus erythematosis, and one of right upper quadrant abdominal mass, considered to be liver, but not tuberculous in view of normal sedimentation rate, normal blood cytology, afebrile course, and the absence of demonstrable tuberculosis elsewhere. The other positive reactors included one case each of acute rheumatic heart disease, chronic rheumatic heart disease in decompensation, post-pneumonic broncho-pleural fistula, bronchiectasis, acute mastoiditis, and rheumatoid arthritis with colonic diverticulitis. The patient showing disseminated lupus erythematosis responded positively also to retesting at a later date; the uncertain etiology of this main complaint is, of course, recognized.

In comment upon the eight patients of the latter group whose findings were inconsistent with the clinical impression of tuberculous inactivity, it must again be recalled that the diagnosis of the absence of tuberculous disease from the human body during life is at best a difficult procedure. There is at present no means for the consistent detection of microscopic tuberculous activity without gross pathologic change. A humoral test, such as the one under discussion, however, by the detection of such tuberculous activity in otherwise presumably non-tuberculous individuals might, after considerable further study, show the necessity for a revision of our standards of tuberculous activity. In other words, the apparently falsely positive results obtained in eight of the second group of patients above are inconsistent only in comparison with the previous clinical evaluation of the cases, which is admittedly incomplete. If it can be shown by further study that such testing is a more sensitive index of minor tuberculous activity than are fever, sedimentation rate, and the like, the inconsistency would become reduced. For the present, however, it must continue to be regarded as at least an inconsistency, if not error.

COMPARISON OF RESULTS

A comparison of the results of testing with the product under discussion, with those obtained with tuberculin cannot be made, inasmuch as the materials, mechanisms, and aims of the tests are widely different. The percentages of errors experienced in the use of both tests are, however, apparently of the same order. The failure of tuberculin to detect tuberculous infection, often assumed to be negligible, is probably of the order of 10 to 15 per cent of infected cases studied, depending on the antigen used, the technic of the examiner, and the number of tests employed.[7,1,5] Difficulties arising in the clinical application of tuberculin tests have been shown by the author to increase the effective error of the test to at times as much as 25 per cent of infected cases studied.[5]

One finds then in the present series a 94.5 per cent correspondence of positive reactions to the clinical diagnosis of active tuberculous disease, and an 84 per cent correspondence of negative

*"Tebigen" Ernst-Bischoff Company, Ivoryton, Connecticut, to whom we are indebted for materials used in the present study.

reactions with the clinical impression of absence of tuberculous disease. This represents a commendable degree of accuracy, paralleling almost exactly previously reported results,[3] so far as comparison is possible, and establishing with, and in addition to these, a performance level to be disproved, corroborated, or improved by subsequent studies.

TECHNIC AND INTERPRETATION

It has been recommended,[3,4] that the test consist in the simultaneous, intra-cutaneous injection of the antigen and control in areas separated by at least several centimeters, preferably over the biceps muscle, this area usually being lax, smooth, scarless, nearly hairless, and readily accessible. Furthermore, it is less likely to have been used in previous cutaneous testing of any type, and local tissues sensitization need seldom be considered. In young children the skin of the abdomen has been used in this survey. The recommended technic was followed scrupulously in the present work.

Tuberculin syringes and 28 gauge short-bevelled needles were obtained new, and were reserved for a particular antigen or control, being sterilized by boiling, with careful expulsion of the water before antigen was drawn into the syringe. Skin preparation was done with alcohol and minimal friction, and the area drawn slightly taut for injection. An amount of material was injected sufficient to afford a wheal of very regular contour, the amount averaging between .05 and 0.1 cc. Not more than two patients were examined at once to insure constant observation of the test for several minutes. Three phases of reaction were generally discernible, usually more or less parallel in intensity, but not always so. The first was an erythema, variable from absence to an intense flare, five or more centimeters in diameter. Secondly, a diffuse swelling of the wheal might occur to two or three times its original area. Thirdly, pseudopods might form simply, or in multiple, beginning as minute excrescences of the originally regular wheal.

All reactions were maximal within two to five minutes, and faded quickly. We have noted no untoward reaction, locally or systemically, immediate, or delayed. Furthermore, with the exception of the estimation of erythema, skin color has not interfered with the test. Despite some parallelism of the degrees of intensity of these three phases of reaction, only the pseudopods were considered of significance, and no correlation of ultimate results with simple erythema or swelling seemed feasible, nor was attempted. Indeed, not infrequently pseudopods appeared without either erythema or swelling. An apparent exception included those instances of swelling which by the mode of formation were considered to represent confluent pseudopods. These were considered as positive tests. Undoubtedly a factor contributing greatly to accurate reading of the tests is scrupulous care in obtaining a wheal of smooth, rounded margins; slow injection, and the careful exclusion of air are essential to the successful formation of wheals.

In general the bovine test appeared to give more definite reactions than the human. This has not appeared, however, to be important, and the results show that both types are apparently necessary for the adequate investigation of a given case. Reactions to both antigens in the tuberculous series were generally more definite and decisive that the positive reactions in the non-tuberculous series. It was thought at first on this basis that it might be profitable to grade positive reactions from one to four plus, according to their intensity. This was considered later to be undesirable, inasmuch as definite though small reactions would thus tend to be minimized while "spreads" due to uneven injection or absorption of the antigen, or to the inclusion of some air would attract undue significance.

In several instances it was expedient to administer both human and bovine antigens simultaneously with their controls. No differences in results so obtained could be observed over those found when the tests were given two weeks apart as originally intended in the studies. This simultaneous administration could probably be adopted with profit in the routine diagnostic work. The introduction of a second antigen would be unlikely to have any more confusing influence than the repetition of one test inaccurately done.

The control solution furnished with the commercial product is a derivative of amniotic fluid rather than of the fibrin of the non-tuberculous guinea pig as first proposed by Gruskin. This is possibly explanatory of a consistent tendency of the control injection to disappear more quickly and with less local reaction than even in the case of a negative reaction to the antigen. It is possible that unless this tendency is well recognized one might by direct comparison be tempted to read a false positive reaction to the antigen in a negative reactor. Gruskin,[4] though recognizing this more rapid and complete disappearance of the wheal, considers the control adequate for the detection of abnormal responsiveness to protein.

PSEUDO-POSITIVE TESTS

The recent administration of tuberculin, as in the Mantaux test, may according to Gruskin[4] give rise to pseudo-positive reactions by virtue of the detection of this quantity of tuberculin in the individual tested. The duration of such sensitivity has not been determined. It is also stated that a test with this antigen, at first negative, may become positive if tuberculin be administered elsewhere in the body within 48 hours.

Factors interfering with the accurate performance of the test under discussion are stated by Gruskin to be principally those altering the

normal state of the skin including particularly dehydration, edema, reactions to actinic, radium, or X-ray exposures, and dermatographia; generalized skin lesions, maceration of the skin, and febrile diseases may also interfere with proper reactions to this skin test, as well as to other tests employing similar criteria in their interpretation, as for instance the intra-cutaneous testing for the detection of allergy. It is to be noted that of the presumably falsely positive tests of the present series several were found in illnesses involving, at least at times, skin manifestations, or altered skin reactions to other antigens, as in the rheumatic and rheumatoid diseases. These instances are nevertheless included in the series as they constitute limitations to the accuracy of the test; they are however properly recognized in the interpretation of the reaction. Contraindications to the application of the tests have not been apparent in the present group of patients, aside from these occasionally confusing factors in its interpretation.

DISCUSSION

Reports of tests performed in 585 cases, principally of pulmonary tuberculosis have been reported by Gruskin et al, with an average of 94 per cent accuracy. Although not stated directly, this is taken to mean a 94 per cent occurrence of positive tests in cases with proved active tuberculous disease. No data are available in the literature to date on the correspondence of the reactions in individuals clinically negative for tuberculous disease.

The present study affords data on the correlation of the test with the clinical status of patients as otherwise determined. The almost identical figures for positive correspondence of the test with clinically active tuberculous disease in previously published studies,[3] and in the present experiment are mutually confirmatory, and suggest a high degree of constancy in the antigen and of the mechanism involved in its reaction.

The somewhat greater error in correspondence of negative tests with absent clinical evidence of tuberculous disease is probably no greater than the error in the determination of the latter status. Considerations affecting this point have already been discussed. Even here, however, the inconsistency is comparatively small for a reaction depending upon a biological mechanism, and is of the same order as that to be found in tuberculin testing. The fundamental differences of the two types of tests must again be emphasized.

SUMMARY

The intracutaneous test of Gruskin for the detection of active tuberculous disease by the injection of homologous protein as antigen was applied to 55 tuberculous patients, and to 50 presumably non-tuberculous patients, ill from other causes. A 94.5 per cent correspondence of results with the clinical evaluation of the cases was noted in the tuberculous series, and an 84 per cent correspondence was found in the non-tuberculous series. Ultimate judgment as to the value of this method of testing among procedures critical to the diagnosis of tuberculous disease, or to the inference of its absence, must, of course, await additional controlled data.

Further problems are easily suggested, particularly the long-time study of patients with tuberculous disease during the phases of quiescence and healing as judged by present clinical standards.

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The Hospital's Personality

In dealing with medical problems it becomes increasingly evident that the patient's mental state requires treatment as well as his disease. And this is particularly true of chronic conditions. Rarely will medicine alone or even fastidious medical supervision attain satisfactory results. Discouragement and worry sometimes will distort the patient's outlook until the physical state becomes definitely aggravated and eventually the patient leaves the hospital as a medical failure; neuroses may ensue, thus leaving the patient with additional handicaps. Likewise, as ground-work is lost medically the hospital will suffer financially in the expenditures, without avail, for bed rest, diets, hydro-therapy and drugs.

Other aspects are concerned with the mental state of the patient. With his return home or transfer to another institution often there is a tendency for misjudging the previous medical care, with the result that the hospital's long and respected history of good work, numerous cures and grateful patients is forgotten. While these reflections often are exaggerated and totally unjustified the repercussions may be the same as in the case of an unfavorable transaction with a neighborhood store or some other business organization.—Burgess Gordon, M.D., Philadelphia; The Weekly Roster and Medical Digest, Philadelphia; Vol. 35, No. 11, Nov. 4, 1939.

The Glomus Tumor: Report of Two Cases

PAUL R. KLINE, M.D., MELVIN BRODY, M.D., and EDWIN R. BRODY, M.D.

THE glomus tumor has numerous synonyms, and in the literature has been referred to as the Popoff tumor, angio-neuro-myoma of Masson, angio-neuroma, and glomus tumor, the latter being used preferably because of its brevity and anatomical significance.

The tumor was first described by Masson of Strasbourg, France, in 1924, and since that time there have been only approximately one hundred authentic cases reported in the literature. The tumor, while not a common pathological entity, is nevertheless all the more uncommon due to failure of recognition on the part of the clinician. The dermatologist rarely has the opportunity to witness this entity as it most often is referred to the surgeon.

The tumor itself is a hyperplasia of the normal glomus body which is homologous to the glomus coccygeum of Luschka. Wise and Weidman[3] and others believe that the tumor represents a hamartoma rather than a true neoplasm, and that occasionally it may be of the order of telangiectasia. Its benign character has been stressed by many observers. The glomus bodies are universally distributed over the superficial cutaneous surface, but are most frequent on the distal ends of the extremities. They present an arterio-venous connection without the presence of any intervening capillaries. The glomus body is surrounded by and abundantly supplied with neurogenous elements, comprising both myelinated and non-myelinated fibers, the latter predominating. By means of this nerve supply the glomus body dilates and contracts, thus regulating the arterio-venous circulation, and indirectly regulating skin temperature.

Clinically the tumor appears as a small, round, blue to violet-red subcutaneous nodule about 3 to 5 mm. in diameter. It is usually single, although Wise and Weidman[3], Adair[8], and Bergstrand[9], have reported multiple tumors. They may be located anywhere upon the body surface, and have been seen on the buttocks, thighs, knees, elbows and trunk. Since the greatest number of glomus bodies are on the extremities, especially the digits, it follows that the majority of glomus tumors are also to be expected in these locations. Nearly 50 per cent of the reported cases have been subungual. Subungual and digital tumors occur with greater frequency in females, while those on other parts of the body occur more frequently in males. They are of slow growth and long duration, and occur in people of all decades.

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The Authors

● Dr. Kline, New York City, is a graduate of New York Medical College, 1930; diplomate, American Board of Dermatology; assistant attending dermatologist, Metropolitan Hospital; assistant attending dermatologist, New York Skin and Cancer Unit of Post Graduate Hospital, New York; clinical instructor in dermatology, New York Medical College.

● Dr. Melvin Brody, Canton, Ohio, is a graduate of St. Louis University School of Medicine, 1936; member American Academy of Dermatology and Syphilology; courtesy staff in dermatology, Mercy and Aultman Hospitals, Canton, Ohio.

● Dr. Edwin R. Brody, New York City, is a graduate of George Washington University School of Medicine, 1937; resident in Dermatology Metropolitan Hospital, Welfare Island, New York.

The tumor is characterized by pain which is knife-like in character and stimulation of discrete "trigger points" on the tumor cause a radiation of pain up the extremity. The pain is



Fig. 1. Case 2. Lower power photograph of glomus tumor showing part of fibrous capsule, blood spaces and glomus cells.

severe and paroxysmal, and may be experienced even before the tumor itself appears. Occasionally, as in one of our cases, the pain is not

experienced until five to ten or even fifteen years after the appearance of the lesion. Pain is experienced earlier in the subungual cases. It may last for a few minutes up to several hours. The tumor

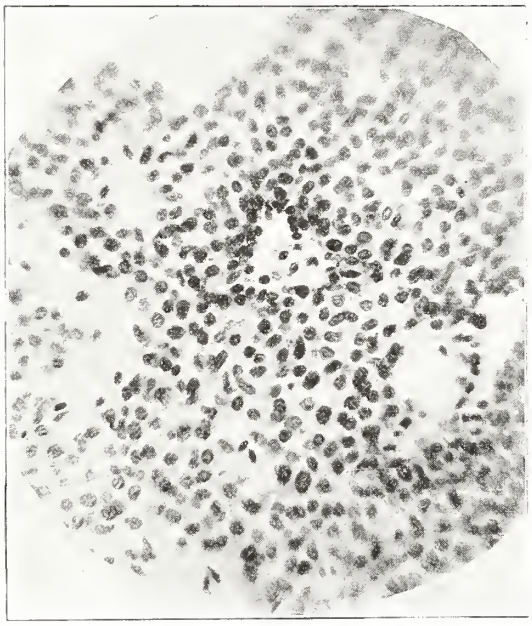


Fig. 2. Case 2. High power photograph, showing morphology of glomus cells, and their similarity to epitheliod cells. Necleoli clearly seen.

is markedly hyperesthetic, and pressure or climatic changes may set off a paroxysm. When located on the upper extremities the pain may radiate up the arm to the shoulder, neck, or even over the precordium. Frequently the patient is awakened from his sleep in acute pain if he has brushed the tumor against the bed-clothes. Many patients with subungual tumors which are unnoticed are classified as neurotics because they complain of these vague radiating paroxysms of pain up the arms over a period of years. The paroxysms become more frequent and more severe as time elapses, and may even result in a disuse atrophy of the extremity. Humphrey[10] has noticed hyperidrosis and variations in temperature of the affected fingers.

The tumor is encapsulated and benign. Microscopically, the vessels may be either thick or thin walled. Masson has described the cellular muscular elements as resembling epithelioid cells or "glomus" cells. Their nuclei are large and rounded or ovoid, and contain a nucleolus. The cytoplasm is pale and acidophilic. These cells often seem to form an endothelial lining of vessels in some areas. In the collagenous reticulum is noticed a network of non-medullated nerve fibers, and Masson observed many corpuscles of Vater and Pacini in the tissues surrounding the tumor. It is apparently agreed that there is no relationship between the unmyelinated nerve fibers and the Pacinian corpuscles, and it is pressure on the latter group that is undoubtedly the factor responsible for the pain experienced in these cases.

Among the more common conditions from which the glomus tumor must be differentiated are angiosarcoma, hemangioma, neurofibroma, and subungual melanoblastoma.

CASE REPORTS

No. 1, C. C., a 42-year-old Italian male, was admitted to the dermatological service of Dr. Frederick Dearborn, Metropolitan Hospital, New York City, on October 20, 1938. He presented a small, bluish subcutaneous nodule approximately ¼" in diameter on the extensor aspect of the left arm. The mass was seemingly attached to the superficial structures, but was rather freely movable. Pressure on the tumor caused pain to radiate up the arm. The patient stated that it had been present for about eight years, but caused him no trouble at any time. About five months prior to his admission, the patient accidentally struck the tumor while driving and immediately experienced a sharp, lancinating pain radiating upward to the shoulder, neck and across the precordium. This pain lasted about a minute. Subsequent to that time the tumor was hyperesthetic and the patient noticed pain whenever it was touched. The pain seemed worse at night, and he was often awakened from his sleep when the tumor brushed against the bedclothes. Due to the fact that the pain extended well over the precordium,



Fig. 3. Case 1. Glomus tumor on outer aspect of left arm.

he thought that he might be suffering from heart disease, and came into the clinic for examination. He was referred to the dermatological service for work-up.

Examination revealed the patient to be in excellent physical condition aside from this small growth present on the left arm and several small, palpable post-cervical nodes. A clinical diagnosis of Glomus Tumor was made.

The tumor was completely excised and found to be encapsulated. Microscopic section showed marked proliferation of the endothelial cells identical to the so-called "glomus cells", with a moderate amount of loose fibrous tissue. These

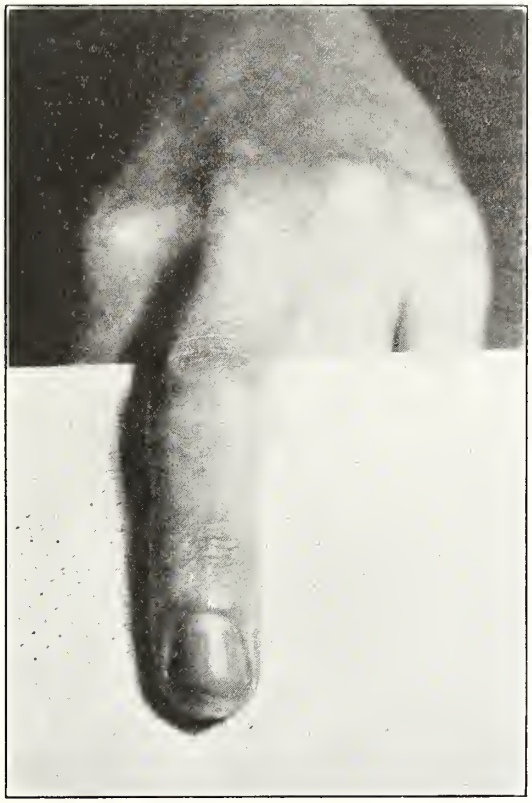


Fig. 4. Case 2. Glomus tumor beneath nail at distal edge of lunula.

cells surrounded the enlarged blood vessels.*

Subsequent to the removal of the tumor, the patient was completely relieved of all pain, and follow-up at the clinic for several months has thus far resulted in no recurrence of the paroxysms.

No. 2, Mrs. C. A., a 27-year-old housewife, was first seen privately by one of us (Kline) in August, 1936. She complained of pain of six years' duration in the middle finger of the left hand, originating beneath the lunula of the fingernail. The pain, which could be brought on by light pressure on the nail, began in the terminal phalanx and radiated up the arm as far as the shoulder. Exposure to cold would initiate a paroxysm which could be relieved by the application of heat. She was often awakened at night with this radiating pain which would last for several minutes. The continuation of these symptoms over a long period produced a nervous condition in an otherwise healthy individual. The patient had been examined by physicians at various intervals and a diagnosis of hysteria was often entertained.

Examination of the finger revealed no abnormalities except a pale bluish discoloration which could be seen underneath the lunula upon close inspection under a strong light. There was no apparent change in the color of the finger when exposed to cold, and no hyperidrosis was present. The patient was extremely nervous but physical examination was essentially negative.

A diagnosis of Glomus Tumor was made, and in September, 1936, the nail was removed under local anesthesia. A small, lentil-sized bluish nodule lying in the nail matrix was found and excised. This nodule was noted to be well encapsulated, extremely soft and vascular. Microscopic section showed many variously sized vessels and sinuses between which were masses and strands of cells. The vessels were mostly thin-walled. The cells were nearly uniform in character, having comparatively large, pale-staining nuclei, and large cell borders with distinct cell outlines.†

Healing took place without apparent deformity of the nail plate. The symptoms were completely relieved within a week after removal of the tumor, and there has been no recurrence in the past two years. The nervous condition of the patient has disappeared; she has gained weight and has completely recovered.

Treatment in these cases consists of completely excising the tumor, which immediately results in a cessation of all subjective symptoms. Recurrences have not been reported, and in so far as is known, complete cure has resulted from this surgical procedure.

SUMMARY

We have presented two additional cases of glomus tumor, the diagnosis of which can easily be made if only the clinical picture which this entity presents be kept in mind, namely (1) the existence of a small, hyperesthetic, subcutaneous blue to violet-red nodule located in most instances on the extremities. (2) Pressure upon the tumor or exposure to climatic changes in typical cases produces characteristic severe radiating pain.

140 W. 58th Street, New York, N. Y.
First Nat'l Bank Bldg., Canton, Ohio.

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*Dr. Andrea Saccone, pathologist of Metropolitan Hospital, confirmed the clinical diagnosis of Glomus Tumor.

†Dr. D. L. Satenstein of the New York Post-Graduate Medical School and Hospital confirmed the clinical diagnosis of glomus tumor after study of section in his laboratory.

Acquired Atelectasis

WM. H. MADDOX, M.D.

ATELECTASIS is the condition in which no air is present in the alveoli. It may be complete as in the new born before respiration, or involve any portion of the lung structure, even down to a few air cells. It may be either congenital or acquired.

Respiration is caused by the effect of the carbon dioxide in the blood on the respiratory center in the brain. A new born babe does not breathe, apparently because the muscular development of the babe is insufficient to carry on respiration as in the premature infant; or because the respiratory center is damaged by intracranial hemorrhage or otherwise; or because of the secretion in the bronchi, usually inhaled; or because of malformations; or analgesics administered to the mother during labor.

However, areas of atelectasis may remain in the lungs for a long time after the babe has cried well, with attendant periods of dyspnoea or shallow breathing and cyanosis and eventual death, one after nine months being reported by Rose[32]. By serial roentgenograms the condition can be followed and diagnosis made between persistent atelectasis and broncho-pneumonia.

Acquired atelectasis is found in many conditions and presents many variations. It is either compressive or obstructive. The symptoms and signs vary with the amount of lung involved, with the duration of the atelectasis and with the pathological condition present and with the presence and type of infection in the bronchi.

The occasional atelectasis from injury does not differ in the appearance of the roentgenogram from the post-operative massive collapse. In both there is elevation of the diaphragm on the affected side, displacement of the mediastinal organs toward the lesion, narrowing of the rib spaces and increase in the density of the lung field. If relief is not promptly secured the air is completely absorbed, frequently within a few hours, and the lung field shows a smooth density equal to that of fluid.

Case 1.—W. H., white male aged 42, truck driver. Admitted January 5, 1933, in shock after an accident. Fracture of right clavicle and second left rib. Burns. On admission chest expansion lags on left side. Breath sounds markedly diminished. Heart normal size, shape, sounds and rhythm. Position not noted. Film January 6 shows partial atelectasis of left lung. Film January 11 shows complete atelectasis and film January 27 shows lung almost completely cleared.

Brown[6] quotes Lee and Tucker's classification:

1. Massive atelectasis of entire lung.
2. Lobar atelectasis.
3. Lobular atelectasis; to which he adds
4. Scattered lobular atelectasis.

He reports finding by bronchoscopic examination the main bronchi clear, the secondary bronchi clear and the tertiary bronchi plugged with mucus causing atelectasis in scattered lobules.

Submitted April 20, 1939.

The Author

● Dr. Maddox, Wauseon, Ohio, is a graduate of Ohio State University College of Medicine, 1898; member Radiological Society of North America; diplomate, American Board of Radiology; roentgenologist, Detwiler Memorial Hospital, Wauseon.

MECHANISM OF COLLAPSE

The mechanism of collapse has been widely discussed. Majority opinion now favors the plugging of a bronchus by thick, tenacious secretion. Faulkner and Faulkner[13] state that bronchoscopically such plugs have been seen with but a thin film covering the bronchial lumen, in other cases a thick, tenacious plug completely blocking the bronchus. The occurrence of such a plug is favored by the high position of the diaphragm and the quiet breathing usual after operation, the suppression of cough by morphine and because of pain, and by the usual maintenance of one position. Also the presence of upper or lower respiratory infection causes increased bronchial secretion which may become thick, especially if atropine is given or the patient is dehydrated.

However this theory does not appear to explain all cases, in particular the traumatic cases. An injury which does not involve the chest may cause atelectasis of an entire lung in the absence of previous cough or disease which might cause the bronchi to contain tenacious mucus. Also bronchoscopy has failed to disclose such plugs in many cases and the bronchi have been found open in post-mortem examinations of atelectatic lungs.

It has been suggested that forcible expulsion of air by the muscles of expiration added to the contraction of the bronchial muscles causes a collapse of the bronchial walls which adhere together. The bronchial muscles form a geodesic network about the bronchioles with sphincters at the atria where the diameter is about 0.2 mm[27]. By their contraction the bronchial tree is narrowed and shortened and the complete closure of the very small bronchioles would seem to be entirely reasonable. While this might be a factor

in traumatic cases it would not seem to be sufficient to explain postoperative cases.

Scott and Cutler[39] say: "That the process is initiated by a nervous reflex, probably largely vasomotor, which results in a narrowing of the lumen in the peripheral bronchioles by venous engorgement, swelling of the mucous membrane and the elaboration of a tenacious secretion." Brown[6] found edema of the bronchial mucosa, simulating angioneurotic edema, which completely closed the bronchi, which would lend support to the statement of Scott and Cutler.

Paralysis of the diaphragm was believed to be the cause by Wm. Pasteur who, in 1910, first described massive collapse following diphtheritic paralysis of the diaphragm. But we constantly see the diaphragm paralyzed by phrenic nerve operations and no instance of a resultant atelectasis has been reported. It is probable that several factors work together to produce postoperative collapse,—diminished respiration, inhibition of the cough reflex and accumulation of secretions, and that plugging of a bronchus is the usual cause. The mechanism is not yet satisfactorily explained.

Complete atelectasis of an entire lung may be produced by the inhalation of a foreign body which lodges in a main bronchus. The worst offender is a dry bean. This soon swells from moisture absorbed and may produce congestion of the adjacent bronchial wall with the accumulation of a secretion around it. Within a few hours the air in the lung is completely absorbed with resulting smooth density of the hemothorax and displacement of all surrounding structures. Prompt relief of the obstruction is followed by aeration and restoration to normal in a very short time. But if the obstructing foreign body is allowed to remain for a few weeks or even days bronchiectasis may appear in the collapsed lung with permanent disability. The foreign body may be expelled from one main bronchus and lodge in the opposite main bronchus with sudden death resulting. The collapsed lung has not had time to expand. Foreign body atelectasis is rarely seen except in children.

Closely akin to this is the collapse of a lower lobe due to bronchitis or pneumonia which results in the so-called triangular basal shadow[2,31,49]. This triangular shadow, adjacent to the heart if on the right and behind the heart if on the left, is caused by the complete collapse of a lower lobe on one or both sides. The remaining lobes expand to fill the chest. In these cases shifting of the surrounding structures toward the collapsed lobe is usually very slight and, if bilateral, the heart is not displaced.

Bronchiectasis invariably occurs in these collapsed lower lobes if the condition is not promptly relieved[2]. Bronchoscopy is the only available method of relief and frequently must be repeated several times. These cases usually occur in poorly nourished children who live in unhygienic surroundings. On the left side the collapsed lobe may leave the diaphragm and become an oval mass beside the spine simulating paravertebral abscess or aneurysm of the descending aorta.

Case 2.—R. M., a white female aged 14. Hemoptysis, seven episodes from June 26, 1938, to July 12, 1938. No other complaint. No history of chronic cough, loss of weight, chest pain or tuberculosis in the family. Pleurisy two years ago. Chest expansion limited at left base with diminished breath sounds and paravertebral coarse rales. Decreased resonance and scattered fine rales in right infraclavicular region. Temperature up to 102; respiration up to 30; pulse 100 to 120. Film July 10 shows partial atelectasis of left lower lobe and perhaps tuberculosis of right upper. Film July 11, not over 18 hours later, shows complete collapse of left lower with retraction along the spine and expansion of the upper lobe to fill the chest.

COLLAPSE IN PNEUMONIA

The question of collapse in pneumonia is discussed extensively. Snow and Cassasa[42] present the thesis that broncho-pneumonia shows collapse of some posterior lobules from complete filling of the bronchi; and emphysema of anterior portions of the lungs due to partial obstructions of larger or smaller bronchi. Certainly physical signs vary from day to day and the roentgenographic picture is not always consistent with the physical signs. Coryllos[9] believes that lobar pneumonia is always at first an atelectasis. However, that opinion is not generally accepted and x-ray examination does not confirm it. It may be a factor in some cases. Faulkner[12] argues very convincingly that postoperatively, by changes in posture, secretion will leave a bronchus which is changed to a higher position and plug a bronchus at a lower level, with the result that an atelectasis is relieved in one area and produced in another area. Snow and Cassasa present the same conclusions in broncho-pneumonia.

Atelectasis may occur at the end of a pneumonic process and involve an entire lung or a part. This may be a factor in delayed resolution.

Case 3.—I. B., a white female aged 18. Admitted May 26, 1937, after treatment at home for about one week for pneumonia of left upper lobe. On admission at 8:00 A. M., temperature 103.2, pulse 128, respiration 28. Temperature dropped to normal in 16 hours and remained normal. Film on May 28 shows atelectasis of entire left lung. Film June 4, seven days later, shows aeration of upper lobe and clearing of lower lobe.

In tuberculosis atelectasis may follow the plugging of a main bronchus by a blood clot or by thick secretions, or by granulation tissue[16,44]. The question of a lobular atelectasis being a cause of the small smooth shadows sometimes seen is one difficult of solution. Whether a shadow is due to allergic infiltration, tuberculosis exudation, lobular atelectasis or inflammation from

mixed infection cannot be answered categorically. Usually displacements of surrounding structures are not sufficient for positive opinion. Sometimes the trachea is displaced toward the involved side and one thinks of the contracture from fibrosis. However fibrosis is not always evident. The treatment of atelectasis in tuberculosis is pneumothorax.

When the tumor of bronchogenic carcinoma fills the bronchus, perhaps with the aid of congestion and secretion, atelectasis occurs. When this extends into the costophrenic angle, the presence of a complicating effusion is sometimes determined only with a needle. The causative factor is determined with the bronchoscope. Collapse of an upper lobe only gives a shadow which has a curve frequently diagnostic.

A tumor outside the bronchus may cause atelectasis by pressure. This is a more difficult situation. A tumor inside the bronchus may be partially removed through the bronchoscope and the lung will re-expand. A tumor outside the bronchus cannot be so treated. This is a middle or old age finding.

Pressure from enlarged tuberculous glands or from aortic aneurysm sometimes causes massive atelectasis which it is impossible to relieve. If from Hodgkin's disease, radiotherapy is usually effective. Massive atelectasis is said to occur in asthma. I have not seen it. Peshkin and Fineman[29] report a case in a nine-year-old boy, but usually it is found in adults. The linear or "disk-like" atelectasis, while long recognized, was first described in American literature by Oppenheimer[28] in 1938.

Massive atelectasis has been reported in fractures of the femur or pelvis and in trivial injuries to the abdomen, chest or buttocks; after abortion and parturition; after diphtheria, meningitis, poliomyelitis, fibrinous bronchitis; with enlarged thymus, in general paralysis and circulatory failure; and after tonsillectomy.

Collapse from compression of the lung occurs in pleuritic effusion, pneumothorax, thoracoplasty and the injection of paraffin and in lung tumors.

Compression from effusion sometimes results in complete atelectasis depending on the amount of effusion and the mobility of the mediastinum.

Case 5.—W.G., white male aged 72. Compression of right lung into upper half of the chest with complete atelectasis. The mediastinum is fixed. The large pleural effusion also displaced the liver downward.

Atelectasis from pneumothorax is not so much a compression as a retraction of the lung due to the contractility of the elastic fibers and connective tissue of the lung, exerted to the full because of the removal of the negative pressure in the pleural cavity. The completely airless lung presents the typical ground glass appearance and will not always expand after absorption of the air from the pleural cavity.

The form of atelectasis most interesting to the surgeon is the postoperative massive collapse. It has occurred in every type of operation on the trunk and neck, with every type of anesthesia and in patients of every age.

Several factors must be mentioned in any consideration of massive collapse.

The vital capacity is reduced from 30 to 50 per cent[11] following every operation on the abdomen or chest. Because of pain or fear of pain respirations are shallow. Allen[1] and Overholt and Veal[28] discuss the position of the diaphragm after operations. It is in the position of expiration on one side or both in 93 per cent of the cases[28] with resulting compression of the bases of the lungs and respiration is principally of the upper costal type. Respiratory rate and depth are further reduced by morphine if used and by spinal anesthesia if the intercostal muscles are involved. The same causes reduce the cough so that secretions are not expelled from the bronchi.

Deficient circulation is an element which is to be determined definitely by the cardiac output, but which is present when the vital capacity is reduced. The effect of respiration on the circulation within the lung is marked and shallow respiration means deficient circulation.

The anesthetic used is of minor importance. Spinal anesthesia favors collapse in those cases in which the intercostal muscles are affected, and by prolonging operation time.[33]

The operation time is an important factor. Rovenstine and Taylor,[33] in a study of 7874 operations at the Wisconsin General Hospital, found that operations lasting one hour or less were followed by less than the average number of lung complications. When the operation lasted from one hour to one and one-half hours, the incidence increased from 50 to 100 per cent. Those lasting two hours showed three times as many as those lasting one hour. If the operation lasted three hours, 31 per cent of the patients had respiratory complications; and those lasting four hours had the highest of all. Brown and Debeham[7] found that abdominal operations under spinal anesthesia consumed 50 per cent more time than with other anesthetics.

The upper abdominal operations are well known to favor massive atelectasis, especially those on the stomach, perhaps because they require longer time for completion.

Infection of the operation site is followed by a larger proportion of cases of collapse than occurs in clean cases. This is definitely the case in appendicitis[23,34]. King[23] found 7.1 per cent of lung complications in clean cases of appendicitis and 27.9 per cent in drainage cases.

Infection of the respiratory passages is a large factor in the occurrence of atelectasis. Christopher and Shaffer[8] found upper respiratory infection in 30 per cent of cases of collapse.

Coryllos[9] found pneumococci in the trachea in 72 per cent of patients operated on and in 100 per cent of those with atelectasis. Oral sepsis is also a factor.[8]

Aspiration of secretions from the upper respiratory tract, or of blood or vomitus, is added to whatever bronchial secretion may be present. Blood has been found in the bronchi in 79 per cent of tonsillectomies by Myerson.[6]

The preoperative classification of the surgical risk is important, atelectasis increasing as the risk is greater.[23,33]

The depth of anesthesia also affects the occurrence of atelectasis. It is more frequent in the deeper degrees of narcosis.[33]

Allergic states are said to favor massive collapse, having been found in 10 per cent of the cases.[43] Polypeptides formed in the operation wound are believed to be a cause in some cases.[43]

Galbraith and Steinberg[15] conclude from experiments on dogs, that the basic cause is interference with respiratory movements,—inflation and deflation of the lung. This produces stasis in the pulmonary arteries, first peripherally, followed by patchy, then diffuse, atelectasis and eventually, from infection in the bronchi, edema and pneumonitis, abscess formation and necrosis if the atelectasis is not relieved.

The symptoms are pain, dyspnoea, fever and cough. "The almost pathognomonic sputum . . . is a thick, viscid, tenacious dirty yellow material of such consistency that the container in which it is held may be completely inverted without the mass altering its shape or becoming detached."[6] If not relieved the later symptoms depend on the micro-organisms present: if pneumococcus, pneumonia develops; if pus producing organisms, lung abscess may follow; if fusiform anaerobic organisms, gangrene of the lung.

The involved side is usually immobile, the percussion note dull and bronchial breathing may be present or the breath sounds entirely absent. The most satisfactory means of diagnosis is by the roentgenogram and frequently diagnosis is possible only by this means.

Considerable differences in density of the involved portion are found. The density varies according to the extent of involvement, whether lobular or lobar; according to whether the obstruction is continuous or intermittent; and according to the time elapsed, whether or not all air has been absorbed or recovery has begun. Density in postoperative collapse is much greater than in the atelectasis of pneumothorax because of fluid in the bronchi and the engorgement of blood and lymph vessels. The most important roentgenological finding is shifting of the heart and trachea toward the involved lung. The high diaphragm alone is not diagnostic and narrowing of the rib cage may be slight.

Case 5.—Mrs. C. B., a white female aged 57, was admitted May 4, 1932, for tonsillectomy. Heart, lungs and kidneys normal. Operation under ether. "Aspirated much blood into lungs. On return from operating room was badly cyanosed and severe pulmonary edema. Heart irregular and in bad condition. Thick tenacious sputum tinged with blood. Temperature 102.4 ax. Pain in left chest. May 6, coughed a great deal. Temperature 99 to 100.8, ax. May 7, expectoration has some brighter blood". Radiograph of chest on third postoperative day shows bilateral collapse of lower lobes. The right diaphragm is high and the rib spaces narrowed. The heart is displaced to the left and the rib spaces are narrowed. Increased density in both lower lobes. Atelectasis probably occurred on the operating table and was favored, if not caused, by aspirated blood. It is believed to be clearing when the film was made, three days later.

Case 6.—O.S., white male, aged 9, was admitted May 23, 1937, for interval appendectomy. Heart and lungs normal. The operation lasted 28 minutes; ether and nitrous oxide anesthesia lasted 35 minutes. The next day the temperature began to rise at 8:00 A. M. and reached 102.8 at 4 P. M. Coughing at frequent intervals and expectorating considerable mucus. Roentgenogram 28 hours postoperatively shows atelectasis of entire right lung. At 6:00 P. M. on May 25, the third postoperative day "Patient was dyspnoeic, cyanotic and there was marked expansion of the left side of the chest . . . and the right showed very little movement on inspiration and expiration. The ribs were close together practically obliterating the intercostal spaces. Moist rales could be heard over this area." Film May 29, four days later, shows complete aeration of the lung. He had carbon dioxide inhalation for five minutes on the third postoperative day and oxygen continuously.

Case 7.—E.L., white female aged 23, was operated on April 4, 1937. Heart and lungs normal by physical examination. Appendectomy. Appendix markedly swollen and firmly adherent to cecum. Peritoneum not soiled by pus. No drainage. Pathological report: "Diffuse appendicitis; fibrinous peritonitis." The operation lasted 28 minutes; gas-ether anesthesia 41 minutes. Film April 9, on the sixth postoperative day, shows massive collapse of the right lung, which probably occurred on the third or fourth day. This patient had morphine 1/4 with atropine 1/150 half an hour before operation. She had morphine 1/4 two hours and six hours postoperatively. The next day three doses of morphine were given and at 2:30 A. M. on the fourth day 2 grains of codeine were given for cough followed by ¼ of morphine in five minutes. The codeine was repeated for the cough with purulent mucous expectoration. The question arises of how much the free use of morphine had to do with the atelectasis.

Atelectasis must be differentiated from lobar and lobular pneumonia, subphrenic abscess, pleural effusion, fibroid phthisis and caseous pneumonia, carcinoma, lung abscess and chronic interstitial pneumonia.

SOME PREVENTIVE MEASURE

Some preventive measures are usually employed for other purposes. The preoperative use of fluids prevents the dehydration which favors

thick, tenacious bronchial mucus. Attention to the upper respiratory and oral (tooth) infections as well as to bronchial infections is desirable. Bronchoscopic removal of secretions in tuberculosis and abscess has been done. Securing the best possible condition of the poor surgical risk is the usual practice in the absence of emergency. The administration of carbon dioxide on the operating table is generally believed to be of value in prevention. However King[23] and Ryan[34] question its value and in some cases it may result in drawing secretions deeper into the bronchial tree and so favor lobular collapse. Removal of secretions from the throat by suction and the avoidance of tight abdominal bandages need hardly be mentioned.

The treatment consists mainly of four measures.

Turning the patient on the uninvolved side, rolling backward and forward with coughing, will frequently dislodge a plug from a bronchus with prompt reaeration of the lung.[35]

Frequent changes of position in order to give gravity drainage to the involved lobes. A complete schedule is given by Lubin.[24]

The use of inhalations of carbon dioxide at intervals appropriate to the case. Morphine sufficient to relieve pain may promote deeper breathing. More than this depresses respiration and favors collapse.

If these measures fail bronchoscopy should be tried. It is used by preference in some clinics instead of carbon dioxide inhalations. Removal of obstructing mucus gives relief.

CONCLUSIONS

1. Massive atelectasis may be caused, in traumatic cases, by contraction of the bronchial musculature through shock to the pulmonary nerves (vagus plus sympathetic). This causes the smallest bronchioles to collapse and the walls to adhere together, much of the air in the alveoli and bronchioles having been forced out by strong contraction of the muscles of expiration and by the narrowing of the bronchi and bronchioles by contraction of the intrinsic bronchial muscles aided by contraction of elastic tissue.

2. In postoperative collapse without question bronchial plugs are present in some cases in main or smaller bronchi.

However, when such plugs are not present, atelectasis may occur from stasis in the pulmonary arteries. This begins in the smallest branches and is favored by impairment of the general circulation and by interference with the amplitude of respiratory movements. This in turn is favored by reduction in vital capacity and other factors mentioned above, high diaphragm with compression of the bases, fear of pain, sedatives, the maintenance of one position, etc.

3. All patients with postoperative pulmonary symptoms should have the benefit of roentgenography, repeated as indicated.

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Case Record Presenting Clinical Problems

Rheumatic Fever, Libman-Sacks Endocarditis or Tuberculosis?

HARRY L. REINHART, M.D.

A WHITE female, 24 years of age, entered the hospital complaining of extreme nervousness, abdominal pain, night sweats accompanied by generalized pains, inability to straighten the arms and legs, and pain on swallowing. Three months after her marriage (which was five years ago), she noticed a progressively increasing weakness. She had been working in a shoe factory but discontinued work on the advice of a physician, who told her she had incipient tuberculosis. The diagnosis was largely based on X-ray examination of her chest and clinical symptoms. She entered a sanatorium where she remained for a period of four and one-half months, during which time they were unable to confirm the diagnosis of tuberculosis. After leaving the sanatorium she remained at home in bed for two months, gained weight up to 115 pounds and "felt better than she had for years". Following this she became pregnant, the course of which was uneventful and terminated in a normal delivery. She continued to feel good and soon became pregnant for the second time, delivering twins at the seventh month, one of which died shortly after birth. After this delivery she felt tired and weak and five months later became pregnant again. By medical management a threatened abortion was avoided and the pregnancy went to term followed by a normal delivery. The child died on the tenth day with icterus gravis neonatorum. One and a half years ago she noticed a dragging pain across her abdomen at the level of the umbilicus which her physician said was due to retroversion of the uterus. This was corrected by manipulation on several occasions with intermittent relief. The abdominal pain was accompanied by extreme tiredness and was aggravated by walking and bending over to such an extent that she could only do her housework while sitting down. About this time she noticed that her fingers were becoming white in the distal portions, and there was numbness of the fingers and toes. A physician discovered a severe anemia and she was admitted to a hospital where she received a blood transfusion and was treated for Vincent's angina. Apparently considerably improved she left the hospital, but within one week returned with the complaint of numbness and blanching of her fingers. She received five additional blood transfusions, each of which was followed by a reaction. A few days later she began having severe attacks of epistaxis which eventually necessitated a nasal operation. She also states that she had a very high fever at this time and was in an oxygen tent for 96 hours. She was treated with a high vitamin diet, liver extract and iron, which greatly increased her appetite and raised her red blood count.

Three months prior to admission to this hospital she developed severe muscle and joint pains and stiffness of her joints which confined her to bed continuously for the two months. During this period her blood count again dropped and she experienced pain and difficulty on swallowing.

Physical examination:—The patient is a well developed and poorly nourished young white woman who appears very anemic and is apparently acutely ill. Her position in bed indicates contracture of the muscles of the extremities. The head is negative except for a small lesion on the forehead which resembles psoriasis. There is a raised red saddle area over the bridge of the nose suggesting lupus erythematosus. This lesion presents little or no hyperkeratosis in contrast to the one on the forehead. The chest is symmetrical and expansion is equal on the two sides. There is no evidence of lung pathology obtained by percussion and auscultation. The heart is not enlarged to percussion and the cardiac impulse is in the left midclavicular line. The cardiac rate is rapid, the beat forceful and the first sound is accentuated. There is a grade 2 systolic murmur present. The abdomen is flat and diffusely tender, especially in the epigastric region. No soft organs are palpable. Pelvic examination reveals a lacerated cervix and retroversion of the uterus. There is a generalized muscular contraction and generalized bone tenderness of the extremities. The neurological examination is negative.

Course in hospital: A spiking temperature varying from 99° to 106.0°, was present throughout the course of the disease. During the second week, chest examination revealed increased vocal fremitus, diminished breath sounds, and rales in the left chest; X-rays of the chest were interpreted as indicating a lobular pneumonia of the left chest with possible effusion. A friction rub was heard over the pericardium and during the following week 100 cc. of reddish-yellow fluid was obtained by pericardial paracentesis. This was repeated a few days later and 435 cc. of fluid similar in character was obtained. The pulse rate gradually increased to 170 and the patient expired on the thirty-fourth hospital day.

Laboratory Examinations:—The blood and spinal fluid Wassermann and Kahn tests were negative. Blood cultures were negative on five occasions. The blood urea nitrogen was 23.5 mg. per cent. Blood sedimentation rate (Westergren) was markedly accelerated. Blood counts: the hemoglobin ranged from 7 to 10 grams; erythrocytes from 2.3 to 2.8 millions per cu. mm.; leucocytes from 4,600 to 7,000 per cu. mm.; differential count from 70 per cent to 88 per cent polymorphonuclear leucocytes with a moderate shift to the left. Repeated sputum examinations for acid fast bacilli were negative. Urinalysis revealed no significant deviation from normal.

Dr. J. R. Reeves:

A consideration of the history, physical examination and laboratory data permits a limitation of the diagnosis to one of three clinical conditions, namely, rheumatic fever, Libman-Sacks endocarditis or tuberculosis. The character and cell content of fluid aspirated from the pericardial and pleural cavities, the myositis, and

joint pain lessen the probability that the patient had tuberculosis.

In support of a diagnosis of Libman-Sacks endocarditis the patient at some time during her terminal illness had the following: painful deglutition, articular and non-articular arthritis, whiteness of the hands, anemia, epistaxis, lupus erythematosus, a mitral systolic murmur, effusive pericarditis, effusive pleurisy, leucopenia, and a very fast sedimentation rate. One or all of the cases described in the original article by Libman-Sacks had the following complication not present in this patient's illness;—all had petechiae, glomerulonephritis and nitrogen retention: some had anasarca, tender lymph nodes or purpura. No Aschoff bodies were found in the hearts from the cases of endocarditis reported by Libman and Sacks.

Acute rheumatic fever of a fulminating type resulting in death could produce the exact picture presented by this patient, or the course of the illness could be duplicated by lupus erythematosus, cortical necrosis in subacute glomerulonephritis or Weber-Christian's disease. The diagnosis, if definitely made at all, would seem to depend upon postmortem gross and microscopical pathology. The author of this discussion had the opportunity of seeing the gross pathology and concluded that the death was due to acute rheumatic fever with complications.

The presence or absence of Aschoff bodies appears of importance in the diagnosis of Libman-Sacks endocarditis since they were not present in any of their reported cases. Their cases were described as terminal events in the course of a relatively short duration so that one wonders if they would not have developed these lesions typical of rheumatic fever had they lived longer. We do not know how much time is necessary for the formation of these bodies. Their tissue structure suggests chronicity.

We are just beginning an era in medicine wherein we no longer attempt to find a single specific etiologic agent for every bizarre illness that presents itself. Rather, we are developing the concepts of constitutional variation which permit us to assume that different people react in a different manner to the same stimulus.

Dr. H. L. Reinhart:

Anatomic Diagnosis: (1) Subacute bacterial endocarditis, (2) subacute serofibrinous pleuritis and pericarditis, (3) subacute glomerulonephritis, (4) acute splenic tumor.

Microscopic examination revealed a bacterial endocarditis, with multiple bacterial emboli in the arterioles and capillaries of the spleen, liver, heart and kidneys. There was no gross or microscopic evidence suggesting an acute rheumatic fever. The presence of numerous bacterial emboli eliminates the necessity for consideration of the so-called Libman-Sacks endocarditis. The bacteria present in the endocardial vegetations and the emboli were cocci. The differential diagnosis in so far as terminology and classification are concerned would seem to rest between the acute bacterial endocarditis associated with the beta-hemolytic group of streptococci, in which the infection of the heart valves is a mere incident in the general streptococcal septicemia, and subacute bacterial endocarditis usually associated with streptococcus viridans (alpha hemolytic group of streptococci), in which the symptoms seem referable to the endocarditis and are the result of embolic processes or myocardial disablement. As no bacteria were obtained from this case by culture it is impossible to state what organisms were the pathogenic agent. However, with reference to the two groups of streptococci it is well to bear in mind that they are each composed of a large number of varieties of streptococci which are not specific and are classified not by pathogenicity but by the way they grow on blood agar. On the basis of the evidence obtained from microscopic examination of the tissues we have classified the pathology as that of subacute bacterial endocarditis.

The clinical observations during the course of the disease may have been unduly influenced by the erythematous rash, pain and stiffness of the joints, pleuritis and pericarditis, anemia, toxic vascular reactions of the skin, negative blood cultures, and the past history. These clinical manifestations are more suggestive of a generalized streptococcal septicemia with an acute bacterial endocarditis than a subacute bacterial endocarditis with symptoms referable to the embolic processes. Nevertheless streptococcal septicemia is present in both conditions and definite evidence of the embolic processes was obtained by microscopic examination of the tissues. Thus the available evidence suggests this to be a case of subacute bacterial endocarditis in which the septicemic symptomatology overshadowed the embolic manifestations.

Student Question: Was the anemia a factor in the clinical manifestations of the disease?

Answer: The manifestations of anemia which occupy such a prominent feature in the past history are not supported by sufficient factual evidence for an etiological classification of the anemia. Certain features such as the character of the onset, tentative diagnosis of tuberculosis, recovery under sanitorium management, recrudescence after repeated pregnancies, and improvement following hospitalization, and general anti-anemic treatment suggest a nutritional deficiency anemia or possibly a mild Addisonian pernicious anemia. It seems reasonable to assume that this anemia was a factor in the lowering of resistance to bacterial infection, poor hematological response in the presence of infection, and the rapidity of the termination of the disease.

Tuberculosis Abstracts

A Review for Physicians by the National Tuberculosis Association and Distributed by Component Society, the Ohio Public Health Association

MARITAL TUBERCULOSIS

THE writer received 208 replies from questionnaires sent to physicians in the United States, European and South American Countries. There was a divided opinion as to the frequency of marital tuberculosis; the majority believing that tuberculosis in both husband and wife is not uncommon. Many, however, believed the incidence to be greater than in the general population. The number of physicians who were inclined to permit marriage between arrested tuberculous individuals was greater than those who permitted marriage of a tuberculous individual with a non-tuberculous one. The majority permitted tuberculous couples to have children, but with reservations.

In addition to these collected opinions the author made a study of marital tuberculosis based on 11,193 cases of tuberculosis reported during a ten-year period to the Health Division of St. Louis. From this group came 210 couples (420 persons) all with clinical, active disease. It was found that while only 3.8 per cent of the reported cases of tuberculosis in married people are in both husband and wife, nevertheless the risk of contracting the disease when in marital contact with an active case is 29 times greater than it is in the general population.

About one-third were Negroes—the rest white. Sputum was positive in both consorts in 20 per cent of cases, positive in either wife or husband only in about 25 per cent. In 54.5 per cent, sputum was negative or questionable.

Interested in knowing whether the danger of infection from the marital tuberculous partner is greater to the healthy consort or to the other contacts, especially children, case histories from the viewpoints of infection and the development of clinical disease in contacts were analyzed. It was found that the incidence rate in contacts was 9 per cent or 69 times greater than in the general population.—H. I. Spector, M.D., Amer. Review of Tuber., Vol. XL, No. 2, Aug., 1939.

PREVENTION OF SILICOSIS BY METALLIC ALUMINUM

Among the conclusions reached by the experimenters are these:

Metallic aluminum on being converted into hydrated alumina reduces the toxicity of quartz in tissues in three ways, (a) by flocculation; (b) by absorbing silica from solution; but (c) chiefly by coating the quartz particle with an insoluble and impermeable coating.

This coating has been definitely identified as a gelatinous hydrated alumina, which on drying forms the crystalline alpha aluminum monohydrate, Boehmite ($Al_2O_3H_2O$).

No animals whose lungs on analysis contained 1 per cent more of metallic aluminum have shown any evidence of silicosis up to periods of seventeen and a half months in contrast to well developed silicosis in the quartz control rabbits in seven months.

In lungs having less than 1 per cent aluminum where fibrosis is present there is no demonstrable evidence of hydrated alumina in the fibrotic areas.

In lungs where the hydrated alumina is shown on staining to be intimately and uniformly mixed with the silica particles fibrosis has never been found.

Aluminum dust for the prevention of silicosis should be of a particle size below 5 microns and grease-free.

It should be uniformly mixed in any inhaled dust and bear a definite percentage to this dust at all times.

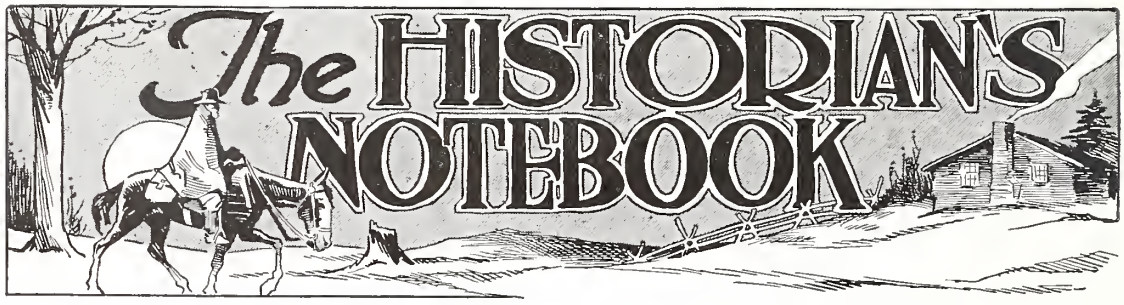
To prevent silicosis, aluminum dust may be inhaled daily independently of the silicious dust.

The aluminum dust must be sufficiently concentrated in the inhaled dust to provide a minimum concentration in the lung of 1 per cent at all times.

The inhalation of aluminum dust in large quantities over long periods of time showed no effect on the general health of the animals and no evidence of toxicity or damage to tissues.

Aluminum dust in any concentration necessary to prevent silicosis has been shown to be hundreds of times below the explosive concentration of aluminum powder.—J. J. Denny, M.Sc., and others, Canadian Med. Assn. Jour., Vol. 40, No. 3, Mar., 1939.

Acute pleurisy with effusion should be considered as a case of potential tuberculosis unless some other cause for the condition is found. Observation should be continued for at least five years after the cessation of the actual pleural disease if the needlessly high mortality from pulmonary tuberculosis following sero-fibrinous pleurisy is to be avoided. From a public health standpoint the cases should receive the same repeated observations as a case of frank pulmonary tuberculosis.—Schneider, L., British Jour. Tuber., April, 1939.



Kept by David A. Tucker, Jr., M.D., Cincinnati, Ohio

Odds and Ends

Part II

DONALD D. SHIRA, A.B., M.D.

BUT to return to the subject of dissection. The Belmont County Medical Society was organized in 1835. A Dr. Evans, Morristown, was its secretary. "This organization had shipped to Belmont county the first 'subject' for the dissecting table of which there is any information. The secretary, in writing to the professor of Anatomy in the Baltimore Medical College asked him to have the vascular system injected so as to disclose the arteries and veins, and when the professor in answering assured the secretary that 'the arteries and veins were usually found close together', the society feared that the secretary had not disclosed, in his letter, the highest order of anatomical knowledge. The 'cadaver' came however, all right, and the first subject was discussed".[6]

VACCINATION

That medical convention of 1835! It was almost completely dominated by Dr. Dan Drake, apparently having for its objectives the revolutionizing of the practice of medicine and everything connected with it.

The vexatious problem of smallpox vaccination existed then even as now. At the Convention it was moved by Dr. Drake that,

"*Resolved*, That in the opinion of this Convention, it would greatly promote the practice of Vaccination, for the General Assembly to enact a law, requiring that after a limited time no child shall be admitted into the public schools, who has not been previously vaccinated".[7]

That Dr. Drake had the courage of his own convictions is attested by the following quotation: "Dr. (William) Goforth (who was Dr. Drake's preceptor) is usually credited with being the first one in the West who practiced vaccination. Dr. Benjamin Waterhouse, of Boston, received cowpock from England in 1800. The following year Dr. Goforth obtained a supply of it and began to use it. Daniel Drake was the first who submitted to vaccination in Cincinnati".[8]

The Author

● Dr. Shira, Columbus, is a graduate of Ohio State University College of Medicine, 1914; former health commissioner of Akron and Summit County; assistant secretary Ohio Public Health Association.

THE LEECH

During the first half of the nineteenth century the medicinal leech was used extensively by physicians. Since most of the leeches were imported from "leech farms" in Germany and Austria, it was difficult for doctors to secure an ample supply. The medicinal leech has a short remarkable musculature and can stretch itself out to five or six inches, or contract down to one and one-half or two inches. Each is capable of absorbing from two to three drams of blood. They were used as depleters. Since the bite of the medicinal leech, because of its chewing mandibles, left a permanent scar, it was necessary to exercise care in selecting a place for its application. They were usually placed in a drinking glass which was inverted over the site selected. After gorging themselves to surfeit they dropped off and were stored away to sleep off their gastromic orgy, which required several weeks.

At the 1835 Convention the committee appointed "on the subject of the Leech", reported, "to-wit:"

"The committee to whom was referred that part of the medical circular which relates to a convenient supply of the Leech, have had the same under consideration, and as they are unable to make any useful suggestions on the subject, ask to be discharged from its further consideration".[9]

An amusing article on how to make leeches

bite appeared in a contemporary journal. According to the advice therein given the leeches were to be thrown into a saucer containing fresh beer and left there until they became quite lively. Even dull leeches, it was contended, and those which had been used not long before, would do their duty. "It will be seen with astonishment how quickly they bite".[10]

CHOLERA

In the presence of the mysterious killer, Cholera, the laity was panic-stricken and the medical profession hopelessly at sea. In the vicinity of Columbus cannons were shot to ward off the pestilence and the ministers of Ohio sent a petition to the governor asking that a day of prayer be set aside. Confusion, blind ignorance and superstition reigned supreme. During epidemics the newspapers contained many articles of advice, well-meaning if often conflicting. Two typical ones follow:

"Our citizens are particularly cautioned against the use of green vegetables at this time. The following extract of letters from an eminent physician now in Wheeling will show the pernicious consequences of their use, and we trust will have the desired effect of causing a general abstinence from the use of them.

"The masses of green, watery vegetables with which the stomach is deluged at this time is a cholera hot-bed".[11]

"To the Editor:—Your editorial on the subject of Cholera yesterday surprises me. You say 'Flight will do no good, for it is a disease that goes everywhere'. In 1832, when the disease was so fatal in our city, there was not a case one mile from the city or in any part of the state, except on the Ohio river. Hundreds that Fall left the city. In 1833 it generally left the city and followed the tributary streams, and the principal traveled routes. Except on the line of travel I doubt if a solitary case can be named unless the person had been in a neighborhood where it prevailed. Should the cholera visit our city and your editorial should induce families to remain, whose business did not demand their presence in our city, and they should suffer by the disease, would you not be greatly censurable?

A. Citizen".[12]

THE THOMSONIANS

About 1832 the Thomsonians, or "steam doctors" were in the full bloom of their prestige. Their principal method of treatment consisted in repeatedly "puking" the patient with lobelia and steaming him to near-collapse at the same time. They had established "The Ohio Reformed Medical College" at Worthington, Ohio, in 1830. Many were the acrimonious clashes between the Thomsonians and the medical profession. Dr. Daniel Drake, probably because of his prominence and truculent forthrightness was a favorite targent for the blasts of the Thomsonites, as the following doggerel-diatribe will disclose.

DOCTOR DIABOLUS, OR THE DEVIL IN CINCINNATI

A Satirical Poem

CANTO I

In days of yore, when time was young,
And Birds conversed as well as sung,
In Cincinnati's western city,
North of Ohio and Kentucky,
There lived a Doctor, lank and thin,
With pointed nose and lengthened chin.
His face was marked with worldly care,
His gait was gaunt, yet debonair;
And though his looks demure were seen
He nursed the smiling thought within:
His cheeks were wan, his visage grim,
With spindle shanks, and figure slim,
His withered brow and tresses grey,
Seem to have known a better day.
His arms, like spiders, when he talked
Sawed through the air; and when he walked
He strode, as though he would bestride
This narrow world, and all beside.
His jaws were long, and thinly set
With tombstone pegs, as grim as death;
His gorge was wide and he would gobble—
All fulsome praise for which some squabble;
The present scene the future lot,
Of friends or foes, were all forgot,
When number one became the thing
He most was interested in;
For diffidence, and age's frost,
In the full tide of self were lost.

In angry mood, he'd wrathly fix,
His learned ire 'gainst No. 6;
And on his wisdom he'd declare
All men might form their "bill of fare"
For mush and milk, or milk and mush,
Were better far than Doctor Rush,
Or any other quack physician,
Whose art might tend to restoration.
For he would prove, by phrases witty,
Himself the learnedst in the city:
For he could prove to demonstration
That bed's the place for Chol'ra patients.
'Tis true, for when the Chol'ra patients,
He fled for safety to the same;
And 'twixt the blankets warm he huddled,
T' avoid the threat'ning, mortal struggle.
Nay, laugh not! when his door we rapped,
Old Sambo said that "Massa was collaps'd
An' dat he swallowed number seven,
Which stay him 'way, no get to Heaven."
This learned Doctor's name you ask?—
How many years with him are passed?
His name's well known to brother cits;—
For who has not heard of his wit, (sic)
His schemes, and specs, and learned puffs,
His school intrigues, and temper rough?—
How he co-lectured at the College
And taught to students CLINIC knowledge;
How he quarrell'd with the seven,
And broke the compact HE had chosen,
And thus by fate reduced their number
To that 'gainst which he'd often thundered,—
How in a case I'll soon relate,
He proved his own a simple pate?

(To be Continued).

"Reprinted, we believe for the first time, from an obscure eclectic medical Journal called, *The*

Ohio Medical Reformer, Vol. I, No. 1, published in Cincinnati in December and January (No. 2) 1832. We have been unable to locate any issues beyond the second, in which the foregoing pseudo-poetical attack on Daniel Drake is not continued. In reply to a Thompsonian enquiry, there is printed in the first number the following manifesto:

"We name ourselves after no man. We believe, that all systems are composed of a little truth and much Error, in the speculations of some systematics, more Truth is to be found than in others:—we embrace what appears to us, true—we reject what, we think false. We advocate no ism"; (O Mr. Dies!)[13]

CANAL TOW PATHS

The paucity of roads inspired the members of the 1835 Convention to appoint a committee "to report a memorial to this Convention, to be presented to the Legislature of Ohio, on the subject of so amending the Canal law as to permit physicians, when visiting their patients, and those calling for medical aid, to ride on the tow-path".[14]

MOURNING FOR DR. P. S. PHYSICK

The members of the Medical Convention of Ohio, 1838, passed a resolution to honor the name and memory of the late Philip Syng Physick, M.D., Emeritus Professor in the University of Pennsylvania, "by wearing crape upon the left arm for thirty days".[15]

ANECDOTES AND MISCELLANEOUS

Dr. Noah Spaulding settled in Berkshire in 1809, and later moved to Delaware. It seems that Dr. Spaulding did not have the most explicit confidence in his own professional judgment. One day he met Dr. Reuben Lamb on the street and said, "Doctor, I have given my wife some blue pills and they have not acted as they should. See what you think of them," showing some he had in his hand. Dr. Lamb placed one between his teeth and remarked, "They are buckshot, and made of lead".[16]

* * *

Once while Dr. M. Z. Kreider of Lancaster was delivering a lecture on temperance, a member of the audience asked a technical question about the effect of stimulants. The next week he received from Dr. Kreider a bill for $5.00 for professional advice.[17]

* * *

"Dr. Kreider has sent us a bottle of 'Brown's Essence of Jamaica Ginger', a valuable stimulant for the stomach. As our appetite for the good things of this earth is seldom, if ever, deficient, we have not been able to give it a fair trial but we imagine that it will prove valuable to hypochondriacs, dyspeptics and all others who imagine they can't eat as much as they want. It is also said to be a good substitute for some other stimulants whose qualities are doubtful".[18]

* * *

Dr. Peter Allen, in his Valedictory Address to the Ohio State Medical Society in 1857, in commenting upon the "almost impassible state" of the roads "in the early settlement of the country" told this story: "It was said, a traveler in wending his weary way through the forest, discovered a hat lying flat in the mud, he reached down to take it up, and to his surprise discovered a man's head under it, he offered him assistance, the man thanked him but said he had no need of any assistance, he had a good horse under him.

"If there is anyone here, who has forty years since traversed the region known by the soubriquet of the Black Swamp, he knows all I can tell him of bad roads.

"The pioneer physicians had to consider dangers by flood and field. To pass over streams when swollen by the flood, or with the surface covered with ice, was sometimes a difficult and dangerous task, and sometimes perplexing when unattended by any great amount of danger. One of the earliest practitioners of Northern Ohio, related the following incident: Having to see a distant patient, he passed through an unbroken wilderness until he came to a river which it was necessary for him to cross. Thinking it would be both comfortable and prudent to keep his clothes dry he divested himself of his apparel and fastened it on his neck and shoulders. He had crossed the river to the opposite side where the bank was somewhat precipitous, his horse declined making any effort to ascend it, he leaped on the shore and tried to pull his horse after him; in so doing he pulled off the bridle; the horse thus free from control made his way back again across the river; the doctor laid down his clothes on the bank and hurried across the stream after his horse; but the animal had made so great progress, that the doctor had quite a race in the woods before he could stop him, he then recrossed the river and reached his clothes in safety. I might here produce the authority of the late Judge Burnet, that in those early times, if a person wished to purchase a horse, one of the first questions with regard to his qualities would be, whether he was a good swimmer".[19]

* * *

In the report of the Committee on Obstetrics to the Ohio State Medical Society in 1857, Dr. J. G. F. Holston, Zanesville, who later became General Ulysses S. Grant's personal physician, tells of "a gross case of malpractice of a so-called *Dutch doctor*. . . . The writer was consulted by a German woman aged thirty, and seven months pregnant of her second child, concerning the propriety of a premature delivery, as she had been assured that she could never bear a living child, on account of deformed pelvis,

which was alleged as the cause of the first child's death. Upon examination a medium or rather small pelvis was found, but no deformity. She was accordingly advised not to have any interference till the full term; and, upon enquiry, was told that the charge would be ten dollars, as they lived in the country. A few days afterward she was seen by the Dutch doctor, who told her he could do it as well as anybody, and would only charge five dollars. He was accordingly employed. The case proved a breech presentation. The doctor, being drunk, endeavored to drag away the child by main force, and, failing, called on the husband and two other men for assistance, whose united strength, aided by King Alcohol, succeeded in dragging away the body, leaving the head. The doctor then left. Hearing, next day, of the wretched case, and that the woman was still alive and strong, the writer, contrary to his usual practice, from sheer pity, sent word that the woman might perhaps be still delivered and saved; but, in his indignation, dropped the incautious remark, that it was a pity, but it would cost the penurious husband one hundred dollars,—which remark being also duly reported, the husband quietly observed, "Be sure, I can't afford to pay one hundred dollars for my wife!" She lingered some thirty hours longer, and died undelivered. The doctor fled, and the husband, in a few months, married a partner sufficiently broad across the hips".[20]

LOOK TO YOUR LAURELS, OH, MIGHTY SULFANILAMIDE!

The conquests of sulfanilamide and sulfapridine pale into insignificance when compared with the manifold healing virtues of "Elixir of Longevity", a patent medicine advertised in the Cincinnati Liberty Hall in 1806.

ITS GENERAL EFFECT

"It gives strength and enlivens the vital spirits, heightens the animal senses, cures the trembling of the nerves, softens and lessens rheumatic pains, and hinders it progressing upwards; cleans the stomach of bad humours, which cause an indigestion, sourness, head-aches and vapours; kills the worms, cures the colic of the stomach and intestines in the space of some minutes; renders lively, relieves the dropsy, cures all indigestion often in an hour's time; takes away the pains of the heart, softens the ears of the deaf, by infusing some of it and covering with a bit of cotton. It soothes for some time the pains of a hollow tooth, by putting some cotton imbibed with it in the same. It cleans the blood, and prompts its free circulation. It is an efficient antidote against poison. It is useful for females, gives color and a fair complexion; purges imperceptibly and without pain; cures all intermitting fevers at the third, and is a preservative from all contagious disorders.

"Doctor Yernest, a native of Sweden, the inventor of the above Elixir, and by whom the secret has long remained in his family, lived 104 years, his grandfather 130, his mother 107, his father 112.

"The above incomparable Elixir of Longevity may be had of the Proprietor at Mr. Mennesieur's Main Street".[21]

The editor of "The Historian's Notebook" would welcome articles from members of the medical profession on the early practice of medicine in Ohio. Contributions should be addressed to The Journal, 1005 Hartman Theater Building, Columbus, Ohio.

Could the seductive tones of the most persuasive radio announcer promise more for a patent concoction?

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Surgeons To Meet In Florida

The officers of the United States Chapter of the International College of Surgeons cordially invite all physicians in good standing to their Fourth Assembly, to be held in Venice, Florida, February 11-14, 1940. There is no registration fee. The convention will be under the direction of Dr. Fred H. Albee, New York City, International President-Elect, and Dr. Frederick M. Douglass, Toledo, President of the United States Chapter. The International President of the College is Dr. André Crotti, Columbus. Information concerning the presentation of scientific papers or exhibits at the meeting can be obtained by addressing the executive secretary, Dr. Charles H. Arnold, Lincoln, Nebraska.

Columbus Session of American Association for Advancement of Science to be Addressed by Leaders in Medical Research

WINTER meeting of the American Association for the Advancement of Science, December 27-January 2, at Columbus, affords Ohio physicians an opportunity to attend one of the country's outstanding scientific meetings.

The sessions of the Section on Medical Sciences, which physicians are cordially invited to attend, **whether or not they are members of the Association**, will be devoted mainly to a symposium on blood, heart and circulation.

The meetings will be held December 27-30, in Room 100, Administration Building, on the Ohio State University campus. **There is no registration fee.**

The cardiologic symposia will be in charge of Dr. Carl J. Wiggers, professor of physiology, Western Reserve University School of Medicine, Cleveland, vice-president of the Section on Medical Sciences. Dr. Charles A. Doan, professor of medicine, Ohio State University College of Medicine, has planned the hematologic program and is local chairman of arrangements for the meeting of the medical section.

Speakers will include some of the most prominent men in the country in the field of medical investigation. The complete program follows:

SYMPOSIUM: BLOOD, HEART AND CIRCULATION

Wednesday, December 27, 2:00 p. m.

BLOOD

"Plasma Prothrombin", Harry P. Smith, University of Iowa College of Medicine, Iowa City.

"A Theory of the Relation of the Reticuloendothelial System to Antibody Formation", Florence R. Sabin, Member Emeritus, Rockefeller Institute for Medical Research, New York.

"The Lymphadenopathy Question", Bruce K. Wiseman, Ohio State University School of Medicine, Columbus.

"Factors Influencing the Size and Shape of the Red Blood Cell", Russell L. Haden, Cleveland Clinic, Cleveland.

"Studies in Iron Absorption with Special Reference to the Relationship of Iron Metabolism to Ascorbic Acid", Carl V. Moore, Washington University School of Medicine, St. Louis.

"Radioactive Iron Studies Relating to the Formation and Destruction of Hemoglobin, and to Circulating Red Blood Cell Volume", Paul F. Hahn and George H. Whipple, University of Rochester School of Medicine and Dentistry, Rochester, New York.

"The Relation of the Porphyrins to Erythropoiesis", Cecil J. Watson, University of Minnesota School of Medicine, Minneapolis.

"The Role of Diphosphoglycerate and other Organic Acid-soluble Phosphorus Compounds of the Red Blood Cells in Intermediate Phosphorus Metabolism, and in the Electrolyte Equilibrium of the Blood", George M. Guest and S. Rapoport, University of Cincinnati College of Medicine, Cincinnati.

Thursday, December 28, 9:00 a. m.

PHYSIOLOGY OF CORONARY BLOOD FLOW

"Pathways of Medical Progress." Address of the Vice President of the Section on Medical Sciences, Dr. Carl J. Wiggers, Western Reserve University School of Medicine, Cleveland.

"Significant Variations in the Anatomical Pattern of the Coronary Vessels", Monroe J. Schlesinger, Harvard University Medical School and Beth Israel Hospital, Boston.

"The Coronary Blood Flow in Trained Animals", Hiram E. Essex, the Mayo Foundation of the University of Minnesota, Rochester, Minn.

"Phasic Changes in Flow Through Different Coronary Branches", Donald E. Gregg, Western Reserve University School of Medicine, Cleveland.

"Vascular and Extravascular Factors in Control of Coronary Blood Flow", Kenneth Jochim, Michael Reese Hospital, Chicago.

"The Distribution of Coronary Blood Flow", Gordon K. Moe, University of Minnesota School of Medicine, Minneapolis.

"The Effects of Certain Drugs on Coronary Blood Flow", Harold D. Green, Western Reserve University School of Medicine, Cleveland.

Thursday, December 28, 2:00 p. m.

Presentation of Theobald Smith Award in Medicine by the President of the American Association for the Advancement of Science, Walter B. Cannon.

Address: "Constitutional Barriers to Involvement of the Nervous System by Certain Viruses", Albert B. Sabin, Rockefeller Institute for Medical Research, New York City; now with The Children's Hospital Research Foundation, Cincinnati, Ohio.

PATHOLOGY OF THE CORONARY CIRCULATION

"Views as to Causes of Coronary Sclerosis", Milton C. Winternitz, Yale University School of Medicine, New Haven.

"Factors Concerned in Narrowing or Occlusion

of Coronary Vessels", William B. Wartman, Western Reserve University School of Medicine, Cleveland.

"Natural and Artificial Collateral Circulation in the Heart", Claude S. Beck, Western Reserve University School of Medicine, Cleveland.

"Adjustments in the Coronary Circulation after Occlusion in the Coronary Arteries", Howard Burchell, Mayo Foundation of the University of Minnesota, Rochester, Minn.

Friday, December 29, 9:00 a. m.

CARDIAC FAILURE

"The Energy Transformation by the Heart and the Mechanism of Experimental Cardiac Failure", Maurice B. Visscher, University of Minnesota School of Medicine, Minneapolis.

"Observations on Cardiac Failure and the Mode of Its Production", Louis N. Katz, Cardio-Vascular Department, Michael Reese Hospital, Chicago.

"Failure of the Heart vs. Weakness of the Circulation", Isaac Starr, Maloney Clinic, University of Pennsylvania School of Medicine, Philadelphia.

"Underlying Causes and Exciting Factors in Clinical Heart Failure", Paul D. White, Norman H. Boyer and C. Edward Leach, Massachusetts General Hospital, Boston.

"The Mechanism of Cardiac Failure due to A-V Fistulae", Johnson McGuire, University of Cincinnati College of Medicine, Cincinnati.

"The Driving Forces of Increased Breathing", Robert Gesell, University of Michigan School of Medicine, Ann Arbor.

"The Pathogenesis of Cardiac Dyspnea", Tinsley R. Harrison, Vanderbilt University School of Medicine, Nashville.

Friday, December 29, 2:00 p. m.

HYPERTENSION

"Experimental Hypertension—Present Status", Irvine H. Page, Lilly Laboratory for Clinical Research, Indianapolis City Hospital, Indianapolis.

"Experimental Observations on the Malignant Phase of Essential Hypertension", Harry Goldblatt, Western Reserve University School of Medicine, Cleveland.

"Humoral Agents in Causation of Hypertension", Arthur Grollman, Johns Hopkins University School of Medicine, Baltimore; Tinsley R. Harrison and John R. Williams, Jr., Vanderbilt University School of Medicine, Nashville.

"Hypertension due to Increased Intracranial Pressure", Norman E. Freeman, Harrison Department of Surgical Research, University of Pennsylvania School of Medicine, Philadelphia.

"Clinical Studies in Hypertension", Soma Weiss, Harvard University School of Medicine and Peter Bent Brigham Hospital, Boston.

"Circulatory Changes in Hypertension", J. Murray Steele, New York University College of Medicine and Welfare Hospital, New York.

Saturday, December 30, 9:00 a. m.

HEART AND CIRCULATION IN SPECIAL TERRITORIES

"Pressure Relations in the Pulmonary Circuit", William F. Hamilton, University of Georgia School of Medicine, Augusta.

"The Histophysiology of Capillaries", Melvin H. Knisely, University of Chicago School of Medicine, Chicago.

"Color, Temperature, and Blood Flow Through the Skin", Alan C. Burton, Eldridge Reeves Foundation of Medical Physics, University of Pennsylvania School of Medicine, Philadelphia.

"Blood Flow in the Extremities under Normal and Pathological Conditions", Eugene B. Ferris, University of Cincinnati College of Medicine; and David I. Abramson, May Institute, Jewish Hospital, Cincinnati.

"Past and Present Status of Standard Limb Leads in Diagnosis of Coronary Occlusion (Experimental and Clinical)", Fred M. Smith, State University of Iowa, Medical School, Iowa City.

"Experimental and Clinical Observations on the Value of Chest Leads in Coronary Occlusion", Charles C. Wolferth, University of Pennsylvania School of Medicine, Philadelphia.

"Changes in Chest Leads in Chronic Coronary Insufficiency", Harold Feil, Western Reserve University School of Medicine, Cleveland.

"Traumatic Lesions of the Heart", Ray W. Kissane, R. S. Fidler and R. A. Koons, Ohio State University School of Medicine, Columbus.

Saturday, December 30, 2:00 p. m.

SYMPOSIUM: DEFENSE MECHANISMS IN PLANTS AND ANIMALS

Joint Session with American Society of Zoologists, Botanical Society of America, Genetics Society of America and American Society of Naturalists, Chapel, University Hall.

Dr. Thomas H. George Appointed to State Medical Board

Dr. Thomas H. George, Cleveland, was appointed a member of the State Medical Board by Governor John W. Bricker on November 3, to serve until March 18, 1944, the expiration of the term of the late Dr. Carl W. Dewey, Conneaut. A graduate of the Cleveland-Pulte Medical College in 1900, Dr. George was a member of the Board from 1929 to 1932. He is a member of the Ohio State Medical Association and Fellow of the American Medical Association.

Members of Poor Relief Committee Offer Help to County Societies in Working Out Local Medical Care Program

At a meeting of the Special Committee on Poor Relief of the Ohio State Medical Association, Sunday, October 29, in the State Headquarters Office, Columbus, members of the committee agreed to offer their assistance to officers of county medical societies in working out practical plans for the medical care of the indigent under the provisions of Sub. House Bill 675, the new State Poor Relief Act.

The meeting was attended by the following members of the committee: Dr. Walter K. Stewart, Youngstown, chairman; Dr. F. S. Van Dyke, Canton; Dr. Fowler B. Roberts, Akron; Dr. Dow Allard, Portsmouth; Dr. R. S. Binkley, Dayton; Dr. W. L. Denny, Cambridge; Dr. F. C. Callaway, Marysville, and Dr. E. B. Gillette, Toledo.

Previously the committee had sent to each county medical society a skeleton outline of a suggested local medical relief program, flexible enough to be adaptable to local conditions. It was reported to the committee that a survey of the state indicates that a considerable number of the counties have negotiated such a plan for the medical care of the poor, with officials of local relief areas. The survey showed that fees varied according to local conditions and the state of local finances.

NEED ADVISORY COMMITTEES

An essential part of any medical relief program, the committee felt, is a Medical Advisory Committee, selected by the county medical society, to assist relief officials in checking abuses and in operating the program on a mutually satisfactory basis.

Carl M. Graves, a member of the staff of the State Department of Public Welfare, attended the meeting, representing State Welfare Director Charles L. Sherwood. Mr. Graves stated that the administration of poor relief in so far as medical policy is concerned is a local matter; that the definition of poor relief under the new law includes the services of a physician or surgeon, wherever rendered, and so long as there are no apparent abuses, the department would not interfere with any policy agreed upon by local relief officials and the county medical societies. He pointed out that there is no state regulation as to what proportion of relief funds can be spent for medical care, this being a question to be determined locally. Any money appropriated for "poor relief" may be used for medical services.

FINANCING DISCUSSED

Provisions for the financing of relief were thoroughly discussed. Sub. House Bill 675 appropriated $20,000,000 of state funds for poor relief for the biennium, 1939 and 1940, specifying how much can be disbursed each month. This allocation is made on the ratio of lawful obligations incurred by the local relief areas to the total of the appropriation made to the Department of Public Welfare for each particular month. For instance, if the total obligation of relief areas for the month of November was $2,500,000, and the allocation provided by law for that month was $750,000, the ratio would be 30 per cent, and each county would be reimbursed for its poor relief obligations to that extent. At the present time poor relief is being financed approximately 31 per cent by state funds and 69 per cent from local sources.

Copies of a report prepared by the State Department of Public Welfare on "Potential Sources of Revenue for Poor Relief" were distributed to members of committee. This report summarizes the estimated revenues available for financing poor relief in each county under the provisions of the special legislation for the raising of funds for poor relief passed at the last session of the Ohio General Assembly.

STATISTICS ON BENEFICIARIES

Statistics on the extent of public assistance of various categories in each county were also submitted, showing for the month of August, 1939, the following totals for the entire state: general relief, 110,968 cases (approximately 400,000 persons); aid to dependent children, 10,351 families, 29,656 children; aid to the blind, 3,951 individuals; aid for the aged, 119,013 individuals; Works Projects Administration, 144,446; National Youth Administration, 8,330; Civilian Conservation Corps, 13,807.

The question was raised as to whether the provisions of the present state poor relief act permitted the use of relief funds for the medical care of those who are not on general relief but receiving other forms of public assistance. It was pointed out that the law states that relief may be partial or total, temporary or permanent, and that partial relief could take the form of medical care to persons who were unable to provide for it themselves. Obviously the extent of this supplemental assistance in each county would depend on the amount of funds available for relief.

AREAS ASSIGNED COMMITTEEMEN

The counties of the state were divided among the members of the committee, as follows, for assistance to the county medical societies in attempting to formulate programs for the medical care of the poor:

Dr. Walter K. Stewart, 506 Stambaugh Build-

ing, Youngstown — Cuyahoga, Geauga, Lake, Ashtabula, Portage, Trumbull, Mahoning, Columbiana.

Dr. F. S. VanDyke, 115 DeWalt Avenue, Canton—Stark, Belmont, Monroe, Carroll, Tuscarawas, Coshocton, Harrison, Jefferson.

Dr. W. L. Denny, Cambridge, Ohio—Licking, Muskingum, Guernsey, Fairfield, Perry, Morgan, Noble, Athens, Washington.

Dr. Dow Allard, 1909 Chillicothe St., Portsmouth—Hocking, Vinton, Pike, Jackson, Meigs, Scioto, Lawrence, Gallia.

Dr. E. O. Swartz, 604 Doctors Building, Cincinnati—Hamilton, Butler, Warren, Clermont, Clinton, Highland, Brown, Adams.

Dr. R. S. Binkley, Fidelity Medical Building, Dayton—Montgomery, Darke, Preble, Shelby, Miami, Champaign, Clark, Greene.

Dr. F. C. Callaway, Marysville, Ohio—Union, Morrow, Delaware, Knox, Franklin, Madison, Pickaway, Fayette, Ross.

Dr. R. N. Whitehead, Bowling Green, Ohio—Wood, Van Wert, Mercer, Allen, Auglaize, Hancock, Hardin, Logan, Seneca, Wyandot, Crawford, Marion.

Dr. E. B. Gillette, 320 Michigan St., Toledo—Williams, Defiance, Paulding, Fulton, Henry, Putnam, Lucas, Ottawa, Sandusky.

Dr. Fowler B. Roberts, 812 Akron Savings & Loan Building, Akron—Summit, Erie, Lorain, Huron, Medina, Richland, Ashland, Wayne, Holmes.

Warning About Repair Men

Reports to *The Journal* indicate that apparently another fraudulent instrument repair-man is loose in Ohio. Recently a personable chap, claiming to be "Sperney" of the Sperney Company, allegedly an instrument repair concern, 2122 Seventeeth St., Toledo, called on a Northwestern Ohio physician soliciting work in repairing and replating surgical instruments. He won the physician's confidence by appearing to be well acquainted with a number of prominent Columbus and Toledo physicians and left with several instruments to repair. Subsequent developments revealed that there is no such company as the Sperney Company in Toledo, and no such number on 17th Street. The "salesman" is described as being about 5 feet 6 inches tall, age 36 to 40, slender, dark complexion, straight black hair, wearing glasses, well-dressed, and "much too good a talker". An account of similar impositions on physicians has appeared in previous issues of *The Journal*, as well as in many issues of *The Journal of the American Medical Association*.

"Use Tax" Must Be Paid by Physicians Purchasing Supplies From Firms Located Outside of Ohio

Failure of some physicians to comply with the "Ohio Use Tax Law", passed in 1936 as a supplement to the Retail Sales Tax Law, has resulted in penalties being assessed against them and the collection of unpaid taxes by the State Tax Commission.

The purpose of the "use tax" law is to protect Ohio merchants from discrimination arising from purchases made outside the state. The law imposes a tax, similar to the sales tax, on the privilege of "using" in Ohio any tangible personal property purchased from firms located in other states.

For instance, when a physician purchases drugs or supplies from a firm not located in Ohio, he must pay the same sales tax as if the purchase were made from an Ohio company.

Many out-of-state firms have made arrangements with the Tax Commission to add the amount of the tax as a separate charge on each sales invoice to Ohio consumers, collecting the tax and paying it directly to the commission. If a consumer makes a purchase from an out-of-state firm which has not made such an arrangement, the law provides that it is the purchaser's responsibility to file a return of such purchase with the Tax Commission and pay the amount of the tax to the Treasurer of State. Such returns must be filed with the Commission on or before the 15th day of the month following each calendar quarter showing the price of each purchase and furnishing other information required by the Commission. A duplicate report must be filed with the State Treasurer, with remittance covering the amount of the tax. Heavy penalties are provided for violation of the provisions of the law.

Physicians can avoid the red tape involved in the aforementioned procedure by confining their purchases to Ohio firms or those out-of-state companies which have made the proper arrangements to prepay the tax, collect from consumers and issue tax receipts.

Open New Offices

Physicians who have recently opened new offices in Ohio include the following: Dr. C. V. Stark, Roundhead; Dr. S. C. Missal, Cleveland; Dr. J. A. Rudolph, Columbus; Dr. James E. Thompson, Washington C. H.; Dr. E. Weltman, Youngstown; Dr. W. P. Rickert, Kenton; Dr. S. Lloyd Corbin, Springfield.

Dr. Charles A. Doan, Columbus, professor of medicine, Ohio State University College of Medicine, is one of the new members of the board of directors of the National Tuberculosis Association.

Eight Propositions Relating to Public Health and Medical Care Advocated in American Medical Association Platform

MEETING in Chicago during the week-end of November 17-19, the Board of Trustees of the American Medical Association adopted a "platform" to guide the American Medical Association and state and local medical societies in their dealings with legislative bodies and public medical and health agencies.

The planks in the platform are based on policies and principles laid down by the House of Delegates of the American Medical Association, expressing in a terse manner the attitude of the medical profession on questions relating to the prevention of disease, the promotion of health and the care of the sick.

The platform of the A.M.A., with explanatory statements regarding each of the eight planks, follows:

* * *

"The American Medical Association advocates:

"1. The establishment of an agency of federal government under which shall be coordinated and administered all medical and health functions of the federal government exclusive of those of the Army and Navy.

"Today the medical and health functions of the United States are divided among a multiplicity of departments, bureaus, and federal agencies. Thus, the United States Public Health Service is in the Federal Security Department; the Maternal and Child Welfare Bureaus in the Department of Labor; the Food and Drugs Administration in the Department of Agriculture; the Veterans' Administration and many other medical functions are separate bureaus of the government. The WPA, CCC, and PWA are concerned with a similarity of efforts in the field of preventive medicine. The Federal Works Administration and the Federal Housing Administration also have some medical functions.

"Since 1875, the American Medical Association has urged the establishment of a single agency in the federal government under which all such functions could be correlated in the interest of efficiency, the avoidance of duplication, and a saving of vast sums of money. Such a federal health agency, with a secretary in the cabinet, or a commission of five or seven members, including competent physicians would be able to administer the medical and health affairs of the government with far more efficiency than is now done.

"2. The allotment of such funds as the Congress may make available to any state in actual need for the prevention of disease, the promotion of health and the care of the sick on proof of such need.

"The physicians of the United States have given freely of their time and of their funds for the care of the sick. Their contributions to free medical service amount to at least $1,000,000 a day. The physicians of this country have urged that every person needing medical care be provided with such care. They have urged also the allotment of funds for campaigns against maternal mortality, against venereal disease, and for the investigation and control of cancer. The medical profession does not oppose appropriations by Congress of funds for medical purposes. It feels, however, that in many instances states have sought aid and appropriations for such functions, without any actual need on the part of the state, in order to secure such federal funds as might be available. It has also been impossible, under present technics, to meet actual needs which might exist in certain states with low per capita incomes, with needs far beyond those of wealthier states, in which vast sums are spent.

"It is proposed here simply that Congress make available such funds as can be made available for health purposes; that these funds be administered by the federal health agency, mentioned in the first plank of this platform, and that the funds be allotted on proof of actual need to the federal health agency, when that need be for the prevention of disease, for the promotion of health, or for the care of the sick.

"3. The principle that the care of the public health and the provision of medical service to the sick is primarily a local responsibility.

"Obviously if federal funds are made available to the individual states for the purposes mentioned in the second plank of this platform, there might well be a lessened tendency in many communities to devote the community's funds for the purpose, and, in effect, to demand that the federal government take over the problem of the care of the sick. Hence, it is suggested that communities do their utmost to meet such needs with funds locally available before bringing their need

to the federal health agency, and that the federal health agency determine whether or not the community has done its utmost to meet such need before allotting federal funds for the purpose.

"4. The development of a mechanism for meeting the needs of expansion of preventive medical services with local determination of needs and local control of administration.

"The medical profession is not static. It wishes to extend preventive medical service to all of the people within the funds available for such a purpose. Obviously, this will require not only a federal health agency which may make suggestions and initiate plans, but also a mechanism in each community for the actual expansion of preventive medical service and for the proper expenditure of funds developed both locally and federally. In the development of new legislation such mechanism may be suitably outlined.

"5. The extension of medical care for the indigent and the medically indigent with local determination of needs and local control of administration.

"The medical profession does not yield to any other group in this country in its desire to extend medical care to all of those unable to provide themselves with medical service. The American Medical Association through its House of Delegates has already recognized the possible existence of a small group of persons able to provide themselves with the necessities of life commonly recognized as standard in their own communities, but not capable of meeting a medical emergency. It is recognized, however, that only persons of the same community fully familiar with the circumstances can determine the number of people who come properly under such classification and that only persons in actual contact with such instances are capable of administering suitably and efficiently the medical care that may be required. Hence it is the platform of the American Medical Association that medical care be provided for the indigent and the medically indigent in every community but that local funds to be first utilized and that local agencies determine the nature of the need and control the expenditure of such funds as may be developed either in the community or by the federal government.

"6. In the extension of medical services to all the people, the utmost utilization of qualified medical and hospital facilities already established.

"In the so-called National Health Program it is asserted that one-half the counties of the United States are without suitable hospitals, and vast sums are requested for the building of new hospitals. In contrast, reputable agencies within the medical profession assert that there are only 13 counties more than 30 miles removed from a suitable hospital and that in 8 of those 13 counties there are five people per square mile. In the United States today the percentage of hospital beds per 1,000 of population is higher than that of any other country in the world. This fact is completely ignored by those who would indulge in a program for the building of great numbers of new hospitals.

"Moreover, it seems to be taken for granted that hospital building has languished in recent years, whereas considerable numbers of hospitals have been built with federal funds by various state agencies and also by the PWA, the WPA and by the Federal Works Administration.

"Analyses may indicate that in many instances such hospitals were built without adequate study as to the need which existed or as to the possible efficient functioning once it was erected. Moreover, there is evidence that in recent years many of the hospitals of the United States known as nonprofit voluntary hospitals have had a considerable lack of occupancy due no doubt to the financial situation in considerable part. It seems logical to suggest then that such federal funds as may be available be utilized in providing the needy sick with hospitalization in these well established existing institutions before any attempt is made to indulge in a vast building program with new hospitals. In this point of view the American College of Surgeons, the American Hospital Association, the Catholic Hospital Association, the Protestant Hospital Association and practically every other interested voluntary body agree.

"Again it has been argued that the demands for medical care in some sections of the country might require the importation of considerable numbers of physicians or the transportation of numbers of physicians in the areas in which they now are to other areas. In this connection it would seem to be obvious that a change in the economic status of the communities concerned would result promptly in the presence of physicians who might be seeking locations. The utilization of existing qualified facilities would be far more economical than any attempt to develop new facilities.

"7. The continued development of the private practice of medicine, subject to such changes as may be necessary to maintain the quality of medical services and to increase their availability.

"In the United States today our sickness and death rates are lower than those of any great country in the world. This fact was recognized by the President of the United States when he

sent the National Health Program to the Congress for careful study. The President emphasized that a low death rate may not mean much to a man who happens to be dying at the time of tuberculosis. The medical profession recognizes the importance of doing everything possible to prevent every unnecessary death. At the same time it has not been established by any available evidence that a change in the system of medical practice which would substitute salaried government doctors for the private practitioner or which would make the private practitioner subject to the control of public officials would in any way lower sickness and death rates.

"There exists, of course, the fact that some persons are unable to obtain medical service in the circumstances in which they live and that others, surrounded by good facilities, do not have the funds available to secure such services. Obviously here again, there is the question of economics as the basis of the difficulty and perhaps lack of organization in distribution of medical service and a failure to utilize new methods for the distribution of costs which might improve the situation.

"The medical profession has approved prepayment plans to cover the costs of hospitalization and also prepayment plans on a cash-indemnity basis for meeting the costs of medical care. It continues, however, to feel that the development of the private practice of medicine which has taken place in this country has led to higher standards of medical practice and of medical service than are elsewhere available and that the maintenance of the quality of the service is fundamental in any health program.

"8. Expansion of public health and medical services consistent with the American system of democracy.

"Careful study of the history of the development of medical care in various nations of the world leads to the inevitable conclusion that the introduction of methods such as compulsory sickness insurance, state medicine and similar technics results in a trend toward communism or totalitarianism and away from democracy as the established form of government. The intensification of dependence of the individual on the state for the provision of the necessities of life tends to make the individual more and more the creature of the state rather than to make the state the servant of the citizen. Great leaders of American thought have repeatedly emphasized the fact that liberty is too great a price to pay for security. George Washington said, 'He who seeks security through surrender of liberty loses both'. Benjamin Franklin said, 'They that can give up essential liberty to obtain a little temporary safety deserve neither liberty nor safety'.

"In these times when the maintenance of the American democracy seems to be the most important objective for all the people of this country, the people may well consider whether some of the plans and programs that have been offered for changing the nature of medical service are not in effect the first step toward an abandoment of the self-reliance, free will and personal responsibility that must be the basis of a democratic system of government".

The 1940 Edition of the American Medical Directory, the register of legally qualified physicians published by the American Medical Association, will soon go to press. Insure yourself an accurate listing in the directory by complying at once with the request of the A.M.A. for information.

New A.M.A. Radio Program, Called "Medicine in the News", Started

For the seventh consecutive season the American Medical Association is presenting a radio program over the facilities of the National Broadcasting Company and affiliated stations. Entitled, "Medicine in the News", the program is on the air each Thursday afternoon at 4:30 o'clock. The initial broadcast was on November 2. There will be 30 broadcasts.

The programs will consist of dramatizations based on current happenings in the field of medicine. Each program will include an important news item from *The Journal of the A.M.A.*, *Hygeia* or some other reputable medical source, and will close with a question of the week drawn from the question and answer correspondence of *Hygeia*. The question will be answered during the following week's broadcast.

As in previous years, this is a sustaining program made possible through the cooperation of the National Broadcasting Company. Classed as an educational broadcast, the program brings no revenue to any radio station or the network. Only stations owned and operated by the National Broadcasting Company are obligated to broadcast the program, although it is available to all stations affiliated with the N.B.C. system.

Ohio stations, which, if they wish, may broadcast "Medicine in the News", are WHK, Cleveland; WLW and WSAI, Cincinnati; WCOL, Columbus, WSPD, Toledo, and WING, Dayton. It has been suggested that local medical societies, in cities where these stations are located, use their influence with station managements to have the programs presented.

Second Course of Regional Postgraduate Lectures Will Conclude in December; Programs for Final Sessions



John E. L. Keyes, M.D.

THE concluding sessions of the Second Year's Course of the Ohio State Medical Association's Regional Postgraduate Lectures will be held at Mansfield, December 6, and at Defiance, Chillicothe, Cambridge and Troy, December 7.

Total registration for the 21 sessions which had been held when *The Journal* went to press was 1,907, an average attendance of 91 at each session.

The program has been presented as scheduled in each region, with the exception of the meeting at Chillicothe on November 9, when Dr. Esther C. Marting, head of the Tumor Clinic, Cincinnati General Hospital, spoke in place of Dr. Mont R. Reid, who had a conflicting engagement. Dr. Marting's subject was "Present-Day Viewpoints on the Diagnosis and Treatment of Cancer".

Accompanying this article are photographs of nine of the speakers who will address the closing sessions. The photograph of Dr. Frank E. Stevenson, Cincinnati, appeared in the September issue. Schedule for the December sessions follows:

REGION A—FINDLAY-DEFIANCE

December 7, Defiance—"Importance of Routine Rectal Examinations", Dr. Charles E. Howard, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions", Dr. John E. L. Keyes, Cleveland.

REGION B—CHILLICOTHE

December 7—"The Deformities of Poliomyelitis Must Be Prevented", Dr. Frank E. Stevenson, Cincinnati; "Hints to the General Practitioner in the Handling of Acute Eye Conditions", Dr. Derrick T. Vail, Cincinnati.

RECION C—MANSFIELD

December 6—"Helping the Public Reduce the Mortality Rate of Acute Appendicitis", Dr. A.



Chas. E. Howard, M.D.



A. E. Brant, M.D.



Derrick T. Vail, M.D.



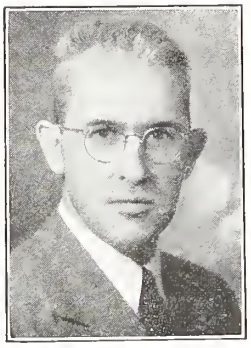
A. B. Bruner, M.D.



W. W. Green, M.D.



Edward A. Wagner, M D.



Edgar C. Baker, M.D.

E. Brandt, Youngstown; "Convulsions in Childhood", Dr. Edward A. Wagner, Cincinnati.

REGION D—CAMBRIDGE

December 7—"Hints to the General Practitioner in the Handling of Acute Eye Conditions", Dr. A. B. Bruner, Cleveland; "Present-Day Viewpoints on the Diagnosis and Treatment of Cancer", Dr. Edgar C. Baker, Youngstown.

REGION E—TROY

December 7—"Convulsions in Childhood", Dr. Robert A. Lyon, Cincinnati; "Importance of Routine Rectal Examinations", Dr. W. W. Green, Toledo.



Robert A. Lyon, M.D.

Ohio Represented by Eight at Annual A.M.A. Secretaries-Editors' Conference

The Annual Conference of Secretaries of State Medical Associations and Editors of State Medical Journals was held at the American Medical Association Building, Chicago, Friday and Saturday November 17-18. Dr. Arthur W. Booth, New York, chairman of the Board of Trustees of the A.M.A., called the meeting to order. Dr. Creighton Barker, New Haven, Conn., secretary of the Connecticut State Medical Society, was elected chairman of the Conference.

After an address by Dr. Rock Sleyster, Milwaukee, President of the Association, the following program was presented at the Friday morning session: "The Study of Medical Care in the United States", by C. Ellsworth Nyberg, Bureau of Medical Economics of the A.M.A.; "The Wagner Health Bill", by Dr. W. C. Woodward, director of the Bureau of Legal Medicine and Legislation, A.M.A.; "Present Horizons", by Dr. Austin A. Hayden, Chicago, secretary of the A.M.A. Board of Trustees.

Following an address by Dr. Nathan B. Van Etten, New York, President-Elect of the A.M.A., on Friday afternoon, a symposium on medical service plans of state and county medical societies was presented. Those participating were: Dr. Norman M. Scott, executive assistant of the Medical Society of New Jersey; Dr. L. Fernald Foster, secretary of the Michigan State Medical Society; Dr. V. W. Spickard, secretary of the Washington State Medical Association, and Dr. Walter F. Donaldson, secretary of the Medical Society of the State of Pennsylvania.

Dr. Carl B. Drake, editor of Minnesota Medicine, presided at a dinner meeting of editors Friday evening at the Palmer House. "The Role of the State Medical Journal in Organized Medicine", was the subject of an address made by Dr. Samuel J. Kopetzky, of the editorial board of the New York State Journal of Medicine. That session closed with a round-table discussion of various publishing problems.

At the Saturday morning session, Dr. F. S. Crockett, La Fayette, Indiana, member of the Committee on Legislative Activities of the A.M.A., spoke on "Rural Medical Service"; and Thomas A. Hendricks, executive secretary of the Indiana State Medical Association, discussed "Meeting Legislative Problems".

Ohioans who attended the conference included: Dr. Jonathan Forman, editor of *The Ohio State Medical Journal;* Charles S. Nelson, executive secretary; George H. Saville, assistant executive secretary, and Richard A. Aszling, director, Bureau of Public Education, Ohio State Medical Association, Dr. W. W. Green, editor of *The Bulletin of the Toledo Academy of Medicine;* George W. Cooley, executive secretary of The Toledo Academy of Medicine; Stanley R. Mauck, executive secretary, the Columbus Academy of Medicine and executive director of the Columbus Bureau of Medical Economics; and Raymond Swink, executive secretary of the Cincinnati Academy of Medicine.

Seek Biographical Data on Cushing

Dr. John F. Fulton, professor of physiology, Yale University School of Medicine, who has been requested by Mrs. Cushing to prepare a biography of her husband, the late Dr. Harvey Cushing, would be most grateful to anyone who wishes to make letters, anecdotes or other memorabilia available.

Copies of all letters, no matter how brief, are desired, and if dates are omitted it is hoped that, when possible, these may be supplied (e.g., from the postmark). If original letters or other documents are submitted they will be copied and returned promptly.

A new Medical Library Building is being erected at the Yale University School of Medicine to receive Dr. Cushing's library and collections, including his letters, diaries and manuscripts. Dr. Fulton's address is 333 Cedar Street, New Haven, Conn.

Digest of Pre-Payment Medical Care Plan for Low Income Groups Initiated by Michigan State Medical Society

AT the recent annual meeting of the Michigan State Medical Society, initiation by the society of a voluntary medical service plan on a pre-payment basis for those in the low income brackets was authorized.

In the November issue of *The Journal of the Michigan State Medical Society* there appeared a digest of "Michigan Medical Service", the name which has been given to the plan.

To acquaint members of the Ohio State Medical Association with the Michigan experiment, "developed after nine years of careful study as an answer to the problem of certain groups in paying for medical services", *The Ohio State Medical Journal* is taking the liberty of reproducing that digest in part as follows.

From time to time, *The Journal* will publish additional information about the Michigan plan as well as plans which have been, or are being, developed in some of the other states.

* * *

MICHIGAN MEDICAL SERVICE

(Reproduced from The Journal of the Michigan State Medical Society, Nov., 1939)

MICHIGAN Medical Service is a voluntary non-profit group medical care corporation organized under special enabling legislation (Act No. 108 of 1939) passed by Michigan's Legislature under the sponsorship of the Michigan State Medical Society. Subscribers to this medical service plan will be entitled to designated medical services from doctors of medicine.

The purpose of Michigan Medical Service is to assist residents of Michigan in the low income group to obtain the services of doctors of medicine by providing for medical services in return for small monthly subscription payments.

Almost a decade of surveys and studies by the Michigan State Medical Society at a cost of over $30,000 has indicated convincingly that the primary problem is the economic inability of certain classes of the population to utilize existing medical services and facilities. Consequently, the Michigan State Medical Society has developed Michigan Medical Service as a means to assist these persons to make use of available medical services.

BASIS FOR THE MEDICAL SERVICE PLAN

Many physicians and lay persons have asked just what the basis for the proposed medical service plan is. From the following major sources of information, the fundamentals of a medical service plan have been adopted for inclusion in the Michigan Medical Service plan:

1. Much of the essential information for a sound medical service plan to assist people of Michigan to pay for medical services was accumulated in the surveys by the Michigan State Medical Society—particularly the Report of the Committee on Survey of Medical Services and Health Agencies, which consists of 175 pages and embodies three years of research.

2. The Committee on the Distribution of Medical Care of the Michigan State Medical Society has devoted much of its time during the past several years to a consideration of the problems of a medical service plan.

3. A committee of the Washtenaw County Medical Society conducted a special study of medical costs in the operation of medical service plans in conjunction with the University of Michigan and the Michigan State Medical Society. Other county medical societies such as those in Wayne and Calhoun counties have collected material relative to the organization of a medical service plan.

4. Much information has been obtained from studies of the incidence of illness and the costs of medical care such as:

(a) The special study of the Bureau of Medical Economics of the American Medical Association, which determined the cost of medical care for a representative group of 1,000 persons.

(b) The 27 publications constituting the survey made by the Committee on the Costs of Medical Care.

(c) Several studies of the Metropolitan Life Insurance Company.

(d) A state-wide survey by the California State Medical Association.

(e) Special studies on various aspects of medi-

cal service plans by other agencies and medical societies.

5. Perhaps the most important source of information on which Michigan Medical Service was based was the actual experiences obtained from operating medical service plans such as the medical service bureaus in Washington and Oregon of which there are now seventeen in operation; the Medical Service Bureau, Atlanta, Georgia; Windsor Medical Service, Inc.; Associated Medical Services of Toronto; California Physicians' Service, San Francisco; Superior Health Association, Superior, Wisconsin; Mutual Health Service, Washington, D. C.; and Hawaii Medical Service Association, Honolulu.

ADMINISTRATION

For an understanding of the Michigan Medical Service plan itself, the following outline indicates the fundamental principles:

Michigan Medical Service will be administered by a Board of Directors consisting of 11 to 35 representatives of the public and the medical profession. The first Board of Directors will be elected by the incorporators who are the members of the Executive Committee of The Council and Officers of the Michigan State Medical Society. Thereafter, the members of the House of Delegates of the Michigan State Medical Society will elect the Directors, one-third to be representatives of the public.

The customary officers and committees will be elected to conduct the activities of Michigan Medical Service. Of particular interest to physicians is the arrangement for the establishment of local Medical Advisory Committees by the medical profession in each locality so that professional judgment will guide the relations with physicians concerning participation, fees, and the rendering of services.

The Articles of Incorporation of Michigan Medical Service have already been certified by the Attorney General. The Michigan State Medical Society has advanced the necessary working capital. The plan will go into effect in the near future and its operation will be under the direct supervision of the Insurance Department of the State of Michigan.

MEMBERSHIP REQUIREMENTS

All employed persons under the age of 65 who can be enrolled in groups of 25 or more, will be eligible for membership. Experience has shown that group enrollment is a definite requisite, at least during the initial period of operation. Subscribers may enroll their dependents, including the husband or wife and the children under 21 years of age.

An annual income not in excess of $2,000 for individual subscribers and $2,500 for subscribers and their families is tentatively proposed as a membership requirement. This income limitation has been determined on the basis of a careful analysis of the income distribution of the population in Michigan. There have been some suggestions that the income limit be lowered and some that it be raised. The proposed limit is the "comfort level" of eligible subscribers and all persons with lower incomes are considered as deserving of the benefits contemplated under the medical service plan. It is of interest that most of the other medical service plans have adopted this or a higher income limit. In the California Physicians' Service plan, the limit is $3,000 per family, and the new Pennsylvania law designates $3,120 as the family income limit.

Residents of Michigan who are on relief or are dependent on public assistance will be entitled to home and office medical services under the new Social Welfare Law. A Medical Relief Division of Michigan Medical Service can be organized to offer home and office medical services to persons in the several relief or public assistance groups, provided the per person amount required for the costs of such services will be paid to Michigan Medical Service out of state funds supplemented by county funds. The development of this program for the consideration of the Social Welfare Commission will be undertaken in the very near future.

BENEFITS

Subscribers to Michigan Medical Service and their dependents will be entitled to receive the following benefits:

1. Medical and surgical care from doctors of medicine of their own choice, including home, office and hospital visits.
2. Consultation services and special medical services such as X-ray, laboratory and anesthesia services performed by doctors of medicine.
3. Obstetrical services after membership for a period of 12 consecutive months.
4. Medical services necessary to establish a diagnosis for tuberculosis, venereal diseases, cancer, and nervous or mental conditions.

After the payment of the first $5.00 incurred for medical service, the subscribers will be entitled in any one subscription year up to:

$325 worth of medical services for individual subscribers

$550 worth of medical services for husband and wife

$875 worth of medical services for a family.

The payment by the subscriber of the initial expense for medical services is a requirement that has been found necessary by operating medical service plans to avoid excessive demands for trivial services. Such a provision will not prove a barrier to the obtaining of needed preventive

or curative medical services. Subscribers who require services will pay the first $5.00 of medical charges only once in a subscription year, regardless of the number of persons entitled to benefits under the subscription payment. For example, if one member of the family has required medical services, then after the payment of the first $5.00 of charges incurred, he and the other members of the family will be entitled to an aggregate of $875 worth of medical services without the payment of any other initial charge.

LIMITATIONS

There are as few restrictions as possible. However, it is obvious that some limitations are necessary to bring the cost of the plan within the incomes of the eligible subscribers.

The benefits of the Michigan Medical Service plan will be limited to the professional medical services of doctors of medicine. Dental care, nursing service, drugs, appliances, and hospitalization are not included. The Michigan Society for Group Hospitalization, sponsored by the Michigan Hospital Association, offers hospital services on a similar group payment basis and has already enrolled more than 40,000 members.

Medical services will not be provided as a benefit of the Michigan Medical Service plan for alcoholism, drug addiction, and self-inflicted injuries, or conditions which are compensable under the U. S. Employees' Compensation Act, the Workmen's Compensation Act of Michigan, or other special legislation. Such conditions which occur through the subscriber's own wilful volition or for which the subscriber is entitled to medical services under special legislation will not be included.

COSTS

The subscription rates proposed for Michigan Medical Service are:

$2.00 per month for individual subscribers

$3.50 per month for husband and wife

$4.50 per month for a family

A registration fee of $1.00 will be charged only in the first subscription year to provide for part of the cost of enrolling members.

The actuarial basis of this rate structure has been carefully determined from the basic sources of information previously indicated. The annual income per person which will be received gives considerable assurance of stability and if a surplus is accumulated it can be used to lower the subscription rate or to increase the benefits.

The employer can also contribute part of the cost to help his employees obtain the benefits of this plan. For those persons who are destitute or who are in the very low income group—the indigent or medically indigent—special arrangements may be made with governmental agencies or private agencies for the payment of part or all of the subscription cost. This is specifically a provision of the enabling act.

The subscription rates are as low as possible in view of available information concerning costs under medical service plans. To offer lower rates would simply mean endangering the quality of the medical services and the undermining of the entire program.

MICHIGAN MEDICAL SERVICE PLAN FULFILLS A.M.A. PRINCIPLES

Particular attention is called to the fact that the Michigan Medical Service plan fulfills the requirements of the ten principles recognized as fundamental for a sound medical service plan by the American Medical Association:

1. **All features of the medical service plan will be under the control of the medical profession.**
2. **No third party will come between the patient and his physician. The responsibility for the character of the medical service will be borne by the medical profession.**
3. **Subscribers will have free choice of a legally qualified doctor of medicine.**
4. **The method of giving service will retain a permanent, confidential, "family physician" relationship between the physician and the patient.**
5. **Medical service is considered separately from hospital service.**
6. **The cost of the payments for medical services will be borne by the patient in accordance with his income status.**
7. **There is no connection between the medical service and cash benefits for the patient.**
8. **All legally qualified doctors of medicine who wish to give services under the conditions established will be included.**
9. **The group to be served will be below the "comfort level" standard of income.**
10. **There will be no restrictions on treatment or prescribing which are not formulated and enforced by the organized medical profession.** — *Michigan State Medical Journal.*

Columbus—"The History and Evolution of Obstetrical Forceps" was the subject of an address made by Dr. Charles W. Pavey at a recent meeting of the Starling Ohio Women's Club, an organization of wives of faculty members of the Ohio State University College of Medicine.

Do You Know - - -

Maintaining a record of many year's standing, Dr. Isa Teed Cramton, Burton, secretary-treasurer of the Geauga County Medical Society, was the first county society officer to transmit 1940 annual dues to the State Headquarters Office.

* * *

A library devoted to the history of medicine has been established at Yale University School of Medicine. The collections of the late Dr. Harvey Cushing and of Dr. John F. Fulton of the Yale faculty will form the basis for the library.

* * *

The Medical Society of Virginia has accepted the invitation of the West Virginia State Medical Association for a joint annual meeting at White Sulphur Springs in 1940.

* * *

A newcomer in the field of state medical journals is the monthly publication of the Medical Society of the State of North Carolina. Dr. Wingate M. Johnson, Winston-Salem, is editor and Dr. T. W. M. Long, Roanoke Rapids, secretary and business manager.

* * *

Annual dues of the Indiana State Medical Association have been increased from $7 to $10, effective January 1, 1940.

* * *

Dr. Louis H. Frechtling, Hamilton, was one of the speakers at the National Safety Congress held at Atlantic City, October 16-20. He discussed "Industrial Hernia and Its Control", at a session of the Health Service in Industry Section.

* * *

Investigation in Wisconsin disclosed that teachers, pupils, and school janitors are frequently subject to lead poisoning exposure because of the lead chromate used as pigment in colored chalk and that the concentration of lead in classroom atmospheres in several instances exceeded the toxic limit. It was recommended that the health hazard be removed by the use of non-toxic chalk.

* * *

There are approximately 19,000 medical officers in the Reserve Corps of the United States Army and Navy.

* * *

The United States Supreme Court refused to review the decision of the Supreme Court of California against the Pacific Health Corporation, thus reaffirming the principle that a corporation may not practice medicine, even though it hires licensed physicians to render medical service.

On the basis of three sets of statistics it has been estimated that at least 500,000 attacks of coronary artery occlusion occur annually in the United States. This is an approximate incidence of one attack per 54 males and 189 females over 40 years of age.

* * *

Speakers at the Annual Clinical Congress of the American College of Surgeons held at Philadelphia, October 16-20, included Dr. John A. Caldwell, Cincinnati; Dr. George M. Curtis, Columbus; Dr. Thomas E. Jones and Dr. Arthur H. Bill, Cleveland.

* * *

The address, "Democracy at the Crossroads", made by Dr. Edward J. McCormick, Toledo, at the recent annual meeting of the Michigan State Medical Society, was published in the Congressional Record.

* * *

Dr. Herbert B. Wright, Cleveland, captain and medical officer of the 112th Observation Squadron, Ohio National Guard, was installed as president of the Aero Medical Association at its annual meeting held recently in Hollywood, Florida.

* * *

City Relief Commissioner Frank G. Jones, Cleveland, recently announced that no more aid would be given recipients of relief who own automobiles, until their license plates were impounded at relief headquarters. It was estimated that between 8,000 and 10,000 automobiles were owned by persons in relief families.

* * *

December 15 will be observed in Ohio schools as School Health Day, it was recently announced by E. N. Deitrich, state director of education.

* * *

All medical officers of the Royal Air Force have been instructed that no one should be allowed to fly, or drive an automobile, while taking sulfanilamide or its congeners. A full dose (3 grams) of this substance lowers an aviator's ceiling by 5,000 feet.

* * *

A Philadelphia hospital and an antivivisection organization each received $5,000 under the will of a woman, who also bequeathed $1,000 to a dog and cat hospital.

* * *

According to the American Medical Directory for 1938, physicians listed as being in general practice numbered 127,733 or 79.2 per cent, while 33,618 or 20.8 per cent are classified as specialists.

In Our Opinion:

Comments on Current Economic and Social Questions and Professional Problems; Suggestions Regarding Organized Activities

Five Good Reasons Why Membership Dues Should Be Paid Now

The little red card tucked away between pages 1328 and 1329 of this issue of *The Journal* has an important meaning for every member of the Ohio State Medical Association. It serves as a warning to each member not to overlook a matter of vital concern to him at this time—**payment of 1940 membership dues to the Secretary-Treasurer of his county medical society so that State Association dues of $7.00 can be forwarded before January 1 to the State Headquarters Office and continuous membership in the State Association assured.** The month of December is the proper period for the collection of annual dues since membership in the State Association is on a calendar year basis and a physician is not a member during the ensuing year until his dues for that year are received at the Columbus office.

There are many tangible reasons why a physician should pay his annual dues in the State Association promptly and not permit his membership to lapse. Here are some of the more important:

1. Data for the 1940 edition of the American Medical Directory is being assembled at this time in the office of the A.M.A. and **unless a physician's 1940 membership dues are received in the very near future by the State Headquarters Office so that proper membership certification can be made to the A.M.A., his name will appear in the Directory in small type, indicating he is not a member of medical organization.** This is something which every physician should avoid, as the Directory is used by many organizations, agencies, insurance companies, hospitals, etc., to ascertain the professional standing of physicians and naturally preference is given to names appearing in big type (those who are members).

2. Membership in medical organization plays an important part in securing professional liability insurance. Most liability insurance companies carefully check the membership status of physicians before issuing them a policy or renewing an old one. **In fact, one large liability insurance company (writing a large portion of the professional liability insurance coverage in Ohio) has adopted a regulation making the issuance of a policy contingent on membership in medical organization.** A physician's ability to secure liability insurance is in jeopardy during the period of membership delinquency.

3. **Lapse in membership means that a physician cannot receive The Ohio State Medical Journal. Mailing list of The Journal will be revised shortly and the names of delinquent members will have to be removed.** We believe *The Journal* is important enough that it should be placed in the hands of every Ohio physician each month. Obviously, it cannot be furnished gratis to delinquents except for a very limited period.

4. The object of the State Association in having a State Headquarters Office is to provide helpful services for members who contribute toward the overhead of that office. Therefore, **it becomes compulsory for that office to limit its services and facilities, including the valuable Workmen's Compensation investigating service and information services on many matters, to members in good standing.** In our opinion, that is the way the office should function as those who "pay the freight" are the ones entitled to benefits.

5. Fellowship in the A.M.A. and in most special professional and scientific societies is contingent on membership in medical organization. **Lapse in membership in the State Association endangers membership in special societies.**

These points are cited because they affect each physician personally and may be matters which he has overlooked.

It is well for a man to respect his own vocation whatever it is, and to think himself bound to uphold it, and to claim for it the respect it deserves. —Charles Dickens.

Right Way to Kill Crack-Pot Schemes Is Demonstrated

Defeat of the crack-pot Bigelow proposals by more than 1,000,000 votes at the recent general election shows what can be done through a properly managed educational campaign.

At the beginning, a state organization was created under competent personnel. As the campaign progressed, auxiliary organizations were established in most of the counties to carry on activities locally. Publicity and speakers' bureaus were set up. A bureau to act as a liaison between the state committee and the local committees was maintained. The program clicked and got results because of efficient organization and because those playing key parts did their jobs well.

There is a moral in all this for the medical profession.

Note how closely the organization established

to oppose the Bigelow proposals parallels the basic structure of the Ohio State Medical Association! Bureaus similar to those maintained by the anti-Bigelow committee are operated by the State Medical Association.

There is no reason on earth why the activities of the State Medical Association, especially in the field of public relations, cannot be carried on just as successfully as were those of the Ohio Emergency Committee providing—this is an important "if"—those affiliated with the State Association take as much personal interest in furthering the purposes of the Association as did those individuals and organizations connected with the Ohio Emergency Committee. The personal equation is the vital factor.

Questions just as important to the medical profession as the Bigelow proposals were to the public as a whole are confronting the medical profession. The profession has a sound and active organization, capable of doing much toward bringing about a satisfactory solution of some of these problems, providing each member will meet his responsibilities and support that organization—the Ohio State Medical Association.

It is the duty of all, that, possessing, they share; knowing, they teach; and commanding, they serve.—Manly P. Hall.

"One Cannot Make Large Fortunes, But . . . ."

Recently, William McDermott, columnist for the *Cleveland Plain Dealer*, published in his column a letter received from a physician in a rural community, prompted by a reference which McDermott had made to the emigration of city people to small towns.

We can't resist reproducing the communication because of the philosophy it expresses and because it touches on one of those important economic problems which are the cause of so much agitation at present for changes in the methods of distributing medical care. Every young physician should read the letter. Those who want to produce Utopia over night should read it as it indicates that many things will adjust themselves if given a chance.

Wrote the small-town doctor to Mr. McDermott:

"This morning's column hit home. I am a physician and surgeon, in a township of some 600 people, 40 miles from Cleveland and 20 miles from Akron.

"I was born and raised in Cleveland and after two years' hospital residency, had expected to practice there. My friends in practice discouraged me, as they were literally starving to death.

"I have been out in the country for six years now. It was for material reasons alone that I started to practice here. Today no amount of rewards could pull me back to the city. Here, a living was assured from the beginning. One cannot make large fortunes, but one's needs are being provided for. Security for the future is being built up. We have our home, our two acres, a grand place to raise the children.

RESPECTED BY COMMUNITY

"The doctor in the small community is highly respected. He brings new life into the world. He takes care of grandma's bunions, as well as removes brother's appendix. He is really needed and knows that he is doing a lot of good. I am certain that very few of my young professional friends in the city can say that.

"We are close enough to the city to drive in as often as we please. We go to the theater frequently. Our culture is kept up. We really miss nothing. I have helped several doctors to locate in small towns and they are all doing well.

"However, the vast majority of city folk moving into the small towns maintain their positions in the city. They find rent is cheaper. They find that a garden will pare down expenses. Many shop workers have purchased farms and put their jobless sons to work running the farms. Paradoxically, the farm boys are moving to the city looking for work. I have made a study of this subject and find that approximately one farmer's son in three is remaining behind to run the farm. As the old farmer dies off, the farm is being purchased by a city shop worker.

"My impression is that the professional man, the doctor, dentist and lawyer, is coming to the small town. The migration of the small town youngster to the city still continues".

If a doctor's life may not be a divine vocation, then no life is a vocation, and nothing is divine.—Stephen Paget.

No Room for the Dilettante, Glory Seeker, the Uninformed

Between now and January 1, most of the county medical societies will elect officers for the ensuing year. On the shoulders of such officers will rest many responsibilities. The success of their societies will depend to a considerable degree on how well they carry on the duties of their respective office.

Because of these factors, the members of each county medical society are confronted with a serious decision when it comes to selecting the 1940 officers of the society. Selections must be made carefully. All members should participate in the elections.

In an address which he made recently when retiring as president of the Philadelphia (Pa.) County Medical Society, Dr. F. F. Borzell made this statement, which should be in the mind of each county society member when he casts his

vote for president, secretary, and other officers of the society:

"These considerations all indicate that the County Medical Society is called upon to assume ever-widening responsibilities, and consequently must be manned and administered by a personnel well equipped, specially trained and imbued with a willingness to sacrifice time and energies in the interests of the profession and the public. There is no longer a place in the officialdom of organized medicine for the medical politician, the self-seeker, the dilettante looking for glory, nor the uninformed.

"The responsibility, however, does not rest entirely with the officers of the County Society. In the last analysis, the rank and file of the membership carries the responsibility for the men it elects to office."

I ask that we may recognize that a physician may be a great doctor without doing original and basic laboratory investigation; that such research belongs to the research investigator and practice to the practitioner. And most of all, I hope that we will go back to the training of medical students clinically by great clinicians to be great clinicians.—H. W. Haggard, M.D.

Your Attention, Please! Is There a Doctor on the Board?

During the past month, Community Chest campaigns have been held in many Ohio cities, the majority seeming to prefer the Fall for solicitation of funds for worthy charitable enterprises.

While looking over some of the clippings of publicity used in the newspapers to stimulate giving, we were impressed with the emphasis placed on the activities of those agencies providing medical and health services in some manner or other. At the same time we failed to find little, if any, reference to the parts which physicians play in making possible such services.

We haven't a martyr complex and we dislike applesauce, but we do feel that even the devil deserves his dues. It would be mighty nice, wouldn't it, if the publicity writers for the Community Chests would let the public know about the abundant services provided daily for the deserving poor by the medical profession? Wouldn't it be great if the medical profession had representation on the controlling board of each Community Chest? Perhaps these things are being done in many cities. We don't know. We're merely asking hypothetical questions. But, we feel they should be done.

Last Spring a snappy editorial on this very question was published in *The Toledo Academy of Medicine Bulletin*. We've been saving that editorial, hoping to find an opportunity to quote from it. Right now seems to be the appropriate time. The sentiments expressed are no more than fair, in our opinion. Call it a bid for glory, if you please, but who in the heck is going to toot the horn for the medical profession if it doesn't do a little horn-tooting of its own?

Said the Toledo Academy publication:

"Another Community Chest Campaign has ended. The large group of volunteer workers who solicited contributions look upon their completed efforts with justifiable pride. In addition to the self-satisfaction of having rendered useful service, they have received public acclaim for their efforts. Toledo business men have contributed to a fund that provided the workers with luncheons and dinners at which they received plaudits for the generous spirit in which they gave of their time and efforts. They have rendered a useful service and are already looking forward to part-time participation in a three-week campaign next year. All this is good and exactly as it should be.

"But what of the other large group of volunteer workers—the doctors? Has there been any time during the campaign that more than casual mention has been made of their services? Even then, such mention has only been made in connection with the agency utilizing these services. The physicians, unlike the volunteer solicitors, do not limit their work to a few days in the year but are always available. How absurd it would be to ask the insurance salesman, active as a solicitor of chest contributions, to contribute his commissions on all policies sold between ten and twelve o'clock each Tuesday. We do not expect the merchant to give the chest his net earnings on all sales made between two and five o'clock every Friday afternoon. No one expects the Director of an Agency, paid with chest funds, to leave his warm bed at 2:00 A. M. to attend to the needs of a client. Yet that is exactly what the doctor does—donates to the chest agencies the time, skill and knowledge from which he derives his livelihood.

"Following is a quotation from *Community Views*, the official publication of the Toledo Community Chest: 'Our Community Chest Agencies help needy sick people get well'. In such agencies, with scarcely an exception, all of the workers are paid—except the doctor. Of what value would be a clinic, staffed with paid directors, secretaries and nurses, if there were no physician to offer his services? How much good would your contribution be if, utilized to hospitalize a needy case, there were no doctor to volunteer his medical knowledge and skill?

"We, as physicians, do not ask pay for this service which we offer in the same spirit as any other contribution of time or money. However, is it too much to expect some official recognition of the part we play in carrying out the program of many of the chest agencies? The physicians of Toledo, who voluntarily give more of their time than any other group, are not even represented on the Executive Council of the Community Chest. Industry, which provides much of the money, social service workers, who are paid for their services—all are represented on the Council. But there is no place for the doctor.

"Formerly we contributed our services and whose work is taken for granted.

wanted nothing more than the satisfaction of knowing that we were living true to the tradition of our profession. But today that is not enough! Our Federal Government calls us a Trust. Many industrialists want us to work for small fees or salaries so that the low wages paid their workers will buy more of their products. Labor unions want free or cheap medical care so that more money will be left for dues and executive 'expenses'. Most serious of all, the politicians are fast learning that a cheap way of securing votes is to offer free medical care. Every pressure group is willing to give freely of our talent and training, provided that it costs them nothing. Each group tries to outdo the other in being generous with our services, asking only that someone else foot the bill. Whether we like it or not, we are in the middle and are being kicked around.

"What we need is a friend. Please, may we have a place on the Chest Council, inasmuch as our free services are so essential to the operation of many of the forty-one agencies? Will the nice, kind gentlemen who provide hundreds of dollars for luncheons for the volunteer solicitors, see that we receive a line or two of acknowledgement in the high-powered campaign literature? Will the newspapers, so willing to headline an often unverified complaint against free medical service, be kind enough to acknowledge editorially our contribution to the chest program? If you don't like us, call us nasty names—but please don't ignore us. Brother, we aren't even asking you to spare us a dime. But we do need some friends!"

P.S. The above editorial got some results. Shortly after it appeared, the Toledo Academy was given representation on the Toledo Community Chest board.

It is most important for us to keep before the public the importance, the central importance, of the medical viewpoint.—Rev. Alphonse M. Schwitalla.

You'd Better See Your Congressman During Next 31 Days

Next session of the United States Congress will begin in January. It is a safe bet that a national health program proposal, or proposals, will be considered during the session.

Therefore, during the next 31 days, missionary work should be done by every physician. Ohio's representatives in the Congress should be interviewed by their physician friends and constituents. The view of the medical profession on medical and health legislation should be presented to them. If personal visits with Congressmen cannot be arranged, a letter should be sent. Final disposition of pending health legislation in the Congress may depend on what is done between now and January 1.

Speaking of the pending legislation, we like the attitude taken by United States Senator Henrik Shipstead, Minnesota, expressed by him in an address at the recent annual meeting of the Minnesota State Medical Association.

Discussing the subject, "Professional Service and the Public Trust", and referring specifically to pending Federal proposals, the Senator said:

"One thing is apparent in this controversy. That is that the health problem is not a purely medical one. As a matter of fact, it is just one phase of the maladjustment of our social and economic life.

"This being true, we might well be concerned with the implications of such legislation as the Wagner Health Bill, which by its provisions tacitly admits that our present deplorable state of unemployment and consequent poverty must be regarded as something of a permanent nature.

"Are we ready to admit this?

"It is difficult to believe that the wealthiest nation on earth is ready to concede that it is unable to find a solution to its economic situation without resorting to regimentation of its people.

"Here is a challenge which must be met if the American way of life is to be preserved.

" . . . Let me repeat that the present depression with its unemployment and widespread poverty has drawn attention to this problem of public health and medical needs of the people. Accordingly, I believe that the demand for public control of medicine is based on the theory that widespread poverty and unemployment has become a permanent fact in this country.

"With these premises I am not at this time willing to agree. I believe that if we can get an honest agreement on what is a correct diagnosis of our social and economic ills, we can easily agree upon a remedy and restore this nation to economic social and political good health, so that the great majority of our population can again make their own living and pay for their medical treatment by being restored to a normal life and security."

At this particular moment when medicine needs support, leaving action on public health measures to individuals within the society does little for the organization as a civic enterprise.—Jackson County Medical Society Weekly Bulletin, Kansas City, Mo.

An Example of How a Good Committee Can Get Results

In these days of change and uncertainty, the county medical society which does not have an alert committee, possessed of intestinal fortitude, representing the society on questions of public relations, might just as well admit that it's verging on a state of coma.

We're not concerned about the title which is given to such a committee. It may be called a committee on public relations, committee on medical economics, or whatnot. But, each society should have some committee which can carry on negotiations with individuals and groups outside

the medical profession on matters having a medical or health angle.

Here is a good example of what a wide-awake committee of this kind can do in the way of protecting the interests of the physicians of a community:

A few months ago the Medical Economics Committee of the Summit County Medical Society gave its attention to an announcement distributed by one of Akron's largest employers (a department store) to the employes of the company. The announcement stated that arrangements had been made with a certain physician to be in the store's hospital at certain hours on five days of each week. It urged employes to take advantage of the "free" services offered them, "when ill or wishing examination", concluding with this admonition: "Regardless of how slight the illness or injury, in the interest of better health take advantage of the new medical service".

The implications of the announcement were quite apparent to the Medical Economics Committee which held a conference with the physician referred to and an official of the store, at which "the bugs" in the plan were discussed.

Within a week, the employer notified the committee that the following instructions to govern the medical services provided by the store had been issued: The company physician after giving first aid, if necessary, shall refer an employe to his own physician for subsequent attention. Under no circumstances shall the store physician treat an employe as a private case if the disability is detected in the store hospital. The only cases entitled to services, other than first aid, from the store physician are those where the employe has not sufficient funds for medical care and it is necessary for the company to bear the expense. All industrial cases shall be handled by the store physician except where the injured employe requests that his own physician be called. Cases involving a customer injured or taken ill in the store will be taken care of by the store physician if the customer has no preference, otherwise, he shall give the customer first aid and then permit the customer to call his own physician. In no case will the company recommend or mention any physician's name. The store physician shall give the physical examination required of all applicants for employment.

The Medical Economics Committee of the Summit County Medical Society accepted this statement of policy as a satisfactory solution of the problem.

Thus ended an episode which was filled with potential dynamite. An alert and intelligent committee met its responsibility and turned in a good piece of work in the interest of the membership of that society. Jobs like this can be done elsewhere if the proper committee is established and competent members are appointed to it. No committee can perform miracles but it usually can do something in a given case, especially if it has the united backing of the society. It might be surprising how quickly some of the bad situations which exist in a good many communities could be remedied if a representative committee of the local medical society would tackle the issues.

What security is there for our cherished institutions when you begin to think of people as a mass of sheep, subject to the propaganda of the clever or the kindly ministrations of the wise.—Charles Phelps Taft.

After All Education Will Do a Lot of Things—Save Lives for Example

A recent announcement made by Dr. Richard A. Bolt, director of the Cleveland Child Health Association, struck us as being of more than passing significance.

Dr. Bolt reported that among the 2,500 women who completed the prenatal education classes held by the association in cooperation with the Cleveland Academy of Medicine during the first six months of this year, there has not been a single fatality from childbirth.

This one statement speaks volumes, in our opinion.

First, it reveals in a dramatic manner the value of proper educational activities.

Second, it should indicate how the greater portion of the public money available for maternal and child health programs should be used for educational programs.

Third, it should emphasize to physicians the value of giving their private patients the right kind of prenatal advice and instructions.

Fourth, it proves that the physician in private practice can play a leading part in health education, if he chooses to do so.

Fifth, it shows that a gigantic bureaucratic program, with a lot of ballyhoo, is not necessary to achieve good results.

Sixth, it demonstrates that persons don't have to be regimented on medical and health matters but will help themselves if given a little encouragement and an opportunity to seek and receive proper advice.

There is hardly a community in Ohio but which could undertake a project of this kind if some guiding genius would take the helm. We'll bet our last thin dime, also, that the medical profession would be tickled to death to cooperate by helping to guide the program and furnishing the technical advice needed.

In Memoriam

Thomas Boyd Beall, M.D., Columbus; Pulte Medical College, Cincinnati, 1883; aged 82; died November 3. Dr. Beall practiced in Columbus for 56 years. He was a member of the Methodist Church. A daughter survives.

William Herbert Bell, M.D., Cincinnati; Miami Medical College, Cincinnati, 1886; aged 79; died October 21. Dr. Bell began practice in Clifton in 1886, serving as health officer of the village until it was incorporated into Cincinnati. He retired in 1931. Dr. Bell was vestryman in the Calvary Episcopal Church for 48 years. Surviving are his widow, three sons and a sister.

Carlyle Walter Dewey, M.D., Conneaut; Cleveland-Pulte Medical College, 1910; aged 58; died October 24. A former president of the Ohio Homeopathic Medical Society and member of the State Medical Board, Dr. Dewey had practiced in Conneaut for 26 years. He had been city health commissioner, member of the local board of education and the civil service commission, and coroner of Ashtabula County. Dr. Dewey was a member of the Masonic Order. His widow, a daughter, three sisters and a brother survive.

Ellis W. Hall, M.D., Attica; Starling Medical College, Columbus, 1885; aged 75; died November 20. A native of Muskingum County, Dr. Hall practiced medicine 13 years in Morgan County and 11 years at Van Buren, before locating in Attica, where he practiced for 20 years. Dr. Hall was a member of the Methodist Church. Surviving are his widow, two daughters and a son.

Owa O. Hausch, M.D., Painesville; Cleveland Medical College, Homeopathic, 1891; aged 75; member of the Ohio State Medical Association and the American Medical Association; died October 14. A former coroner of Lake County, Dr. Hausch practiced in Thompson for two years, and in Perry for over 20 years. He moved to Madison in 1918 and maintained his office there until he located in Painesville eight years ago. Dr. Hausch was a member of the Church of Christ and the I.O.O.F. His widow, three daughters, two sons, a sister and two brothers survive.

David Nathan Hopkins, M.D., Friendship; Cincinnati College of Medicine and Surgery, 1898; aged 70; member of the Ohio State Medical Association and the American Medical Association; died October 31. Dr. Hopkins retired last June after 40 years' practice in Friendship. Active in the affairs of that Scioto County community, Dr. Hopkins was a member of the Methodist Church, Knights of Pythias and the I.O.O.F. Surviving are his widow, a daughter, a son, and a sister.

Claude N. Parker, M.D., Gallipolis; Medical College of Ohio, Cincinnati, 1895; aged 65; member of the Ohio State Medical Association and the American Medical Association; died October 30. After a short period in practice with his father, the late Dr. E. W. Parker, in Gallipolis, he was appointed to the staff of the Athens State Hospital. In 1901 he returned to Gallipolis, and continued in practice there until his death. Prominent in civic and professional affairs, Dr. Parker was vice-president of the First National Bank, and a member of the Knights of Pythias and the Methodist Church. He had served as vice-president of the Gallia County Medical Society. His widow, his mother and a sister survive.

Fred Lawrence Rhodes, M.D., Massillon; Ohio State University College of Medicine, 1916; aged 49; died October 10. Dr. Rhodes served overseas in the Medical Corps of the United States Army during the World War, and in 1919 joined the staff of Massillon State Hospital, of which he was assistant superintendent for a number of years. In 1931 he entered private practice in Massillon. His widow survives.

Charles F. Ryan, M.D., Fletcher; Medical College of Ohio, Cincinnati, 1885; aged 79; member of the Ohio State Medical Association and the American Medical Association; died October 29. Dr. Ryan practiced in the Miami Valley for 54 years, having been located in Gettysburg and Versailles, and for the past 15 years in Fletcher. He was one of the oldest Masons in Ohio, having been a member for over 63 years. Dr. Ryan also belonged to the Methodist Church. His son, Dr. E. H. Ryan, Columbus, survives.

Perry Jacob Shank, M.D., Cincinnati; Miami Medical College, Cincinnati, 1902; aged 80; former member of the Ohio State Medical Association and the American Medical Association; died October 25. Dr. Shank retired two years ago, after having practiced in Pleasant Ridge for 34 years. He was a member of the Masonic Order.

Wilson H. Thompson, M.D., Celina; Marion-Sims College of Medicine, St. Louis, 1899; Cincinnati College of Medicine and Surgery, 1901; aged 62; former member of the Ohio State Medical Association and the American Medical Association; died October 19. Dr. Thompson retired three years ago because of ill health, after having practiced in Celina for over 20 years. He was vice-president of the Mercer County Medical Society in 1919, 1930, 1931 and 1936, and president in 1937. Surviving are two sons, a sister—Dr. Ella T. Fast, Paulding, and two brothers.

Impressions In A Doctor's Office

STANLEY R. MAUCK

IN concluding this series of articles we wish to present a few general observations about the physician's office. These impressions have been gained by several years' experience in a service of professional management and medical business bureau operations which have afforded extensive contact with many offices and the opportunity for acquiring a wide cross-section reaction by the patient clientele.

The various business problems related to medical practice have been discussed in this series of articles with full recognition of the fact that the physician's own professional skill and ability constitute the essential factor for a successful career. The man who can win and hold the confidence of his patients in the belief that he is a competent physician—a better one than the other fellow—will frequently succeed in spite of the various handicaps and shortcomings which have been pointed out in these discussions. It has been our sole purpose to present certain supplementary factors in a proper perspective in an effort to direct attention to their real importance. There is common agreement that more effective and systematic office procedure and improved business control of the truly business phases of medical practice can and should be developed for the medical profession in general. Times have changed and present-day social and economic conditions demand more attention to the office or business side of practice. These discussions have attempted to emphasize the importance of proper consideration of such subjects as office records, statement procedure, the follow-up of delinquent accounts, the use of collection agencies, value and use of credit information, and the qualifications and worth of a good secretary. No man in the profession can say that he is not affected by these economic considerations. It may be merely a matter of degree, but nevertheless the influence exists. The business phase of the practice of medicine cannot be divorced from the scientific, and the subject matter presented in these articles is related, directly or indirectly, to every professional office.

This is the last of a series of articles on "Office Problems of the Physician" presented in Volume 35 of the Ohio State Medical Journal.

Mr. Mauck, author of the series, is Executive Secretary of the Columbus Academy of Medicine and Director of the Columbus Bureau of Medical Economics. Previously he operated a private professional management service for physicians.

MINOR DETAILS IMPORTANT

Out of a broad experience in dealing with a great many patients of hundreds of different physicians, we feel competent to register the reaction of some patients to certain other factors about the doctor's office. In disgust, some who read this comment will dismiss it as trivial and of no consequence. Compared with the factor of the physician's own personal equation — his ability and his personality — these things are trivial, of course. But the attitude of patients is often determined by impressions about details. Many offices could well afford to give more consideration to certain relatively minor factors that inevitably do exert either a favorable or unfavorable influence. Adverse comment about doctors, prompted by relatively minor considerations, have been heard too frequently to be ignored in the thousands of contacts through our business bureau relations with the patients of our many local physicians.

When your patient is delayed in your waiting room, he has a chance to make a few observations. The critical housewife, or any other woman patient, will likely note the cleanliness and order of the surroundings. She will observe the draperies, the condition of the decorations, the pictures on the walls, the floor coverings, the lighting effect, the furniture. If she is a new patient, while she waits she formulates some rather definite ideas about the man whom she is soon to meet and to whom she is about to commit her case—he is clean and sanitary or sloven and careless; he is orderly and systematic or haphazard and negligent; she is favorably impressed or critically suspicious before she has even seen her physician; she is predisposed to like him or not like him. And to give further detail to the picture, the secretary may add some bold color—a pleasant or an irritating manner, a tell-tale conversation over the phone, etc. A good or a bad psychology has been created while your patient waits, a factor not wholly unrelated to the success of your later treatment.

UP-TO-DATE READING MATERIAL

Another waiting room factor, affecting men and women alike, is the character of the reading matter available to reduce the irksomeness of the delay or distract the mind of the suffering patient. Why, we have often wondered, are physicians so prone to impose old and out-of-date

periodicals upon their patients? Who likes to read a last year's "Time" or a "McCalls" which presents last Spring's fashions when the earth is ankle-deep in snow? The table that is decked only with out-dated, dog-eared, dirty magazines and periodicals may suggest to the waiting patient certain none-too-favorable characteristics about the physician, and for the new patient there is added another highlight to the picture of the physician whose professional service is sought. A trivial detail—yes! But why not capitalize on this psychological factor to create favorable impressions through more recent periodicals and avoid the unfavorable reaction on the part of the sensitive individual who resents the implication that any old kind of reading matter is good enough for your patients while awaiting admittance to the inner sanctum? Magazines of the most recent date may not be essential, but the age and condition of many that are observed all too frequently in physicians' offices suggest a carelessness that the patient may associate with the application of professional skill. The practice of medicine involves some of the fundamental principles of salesmanship, and a favorable attitude toward the product, in this case the doctor and his services, is much to be desired. The impressions conveyed by the waiting room, its furnishings and cleanliness, constitute a silent salesman either for or against the physician. This detail is too frequently overlooked.

SELECT MAGAZINES CAREFULLY

Another factor regarding the waiting room literature relates to its character. A waiting patient needs to be entertained, preferably with extensively illustrated magazines which will divert his attention and hold it briefly. There are certain types of literature which should be omitted from the list, and the first is medical literature. There is enough medical material in the popular magazines and newspapers without further arousing morbid curiosity and stimulating lay opinions by glancing at medical periodicals in the waiting room. Not infrequently do we find copies of *Medical Economics* placed at the disposal of the patients, a magazine which often discusses matters of a medico-legal nature or other patient-physician business relations which certainly should not be exposed to the physician's clientele. It is not uncommon, also, to find copies of *The Journal of the American Medical Association* and *The Ohio State Medical Journal* on the waiting room tables, as well as issues of the monthly publication of the local county medical societies. It should be evident to any physician that the material in such publications is for his confidential information and not for indiscriminate reading by his patients. While the scientific data in these publications may not hold any interest for the lay reader, yet the frank discussion of some of the economic problems confronting the profession surely should be excluded from lay consumption.

NEAT OFFICE IMPRESSIVE

After these various impressions gained in the waiting room, additional confirmation about the doctor's habits may be found in his own private office. In fact, conditions here may be even more damaging than those found in the waiting room. An alert secretary, or the feminine touch of the doctor's wife, may be responsible for a degree of system and order in the outer room, which is in marked contrast with the conditions in the physician's own private domain. A desk that is piled high with a hodge-podge of books, periodicals, unopened mail, pharmaceutical samples, a stethoscope, etc., hardly inspires confidence in the physician on the part of the patient. Can a mind that permits such disorder in its office surroundings, the patient may reason, be efficient, orderly and thorough in its application of medical skill? Proper sanitary and sterile precautions should be synonymous with every doctor's office, but unfortunately this is not always the case. There is, of course, no excuse for this condition. Many patients have been repelled by the failure of the physician to observe the rules of ordinary cleanliness, both personal and in the use of instruments and dressings. These careless habits of the physician may represent an innate quality which is difficult to correct. The older physician will seldom recognize any necessity for reform along these lines, but the younger man should realize the danger involved in these undesirable habits and guard against the tendency of their accentuated expression as he grows older in practice. Competition among physicians today is too acute to warrant a careless disregard for some of these seemingly unimportant details. In cities and towns where medical facilities are now concentrated, with a free choice among a number of competent physicians, the proper regard for some of these factors will account for the success of one man in contrast with the failure of another. In building a practice today, the physician should not disregard the psychological factor, which may be determined by impressions gained from the surroundings in his own office.

In conclusion, we wish again to emphasize our recognition of the fact that a physician, first of all, is valued for his professional knowledge and skill. We are not advocating that he be converted into a business man rather than a physician, but greater attention to the business side of medical practice is not unprofessional or beneath the dignity of the profession. **The public will continue to prefer to be treated by a good physician who is a poor business man, rather than by one who is short on professional qualifications.** Our aim, however, has been to stress the importance of some of the office and business problems of the physician and to stimulate a keener appre-



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ciation for the proper balance between the scientific and the business aspects of professional pursuits. The two are not incompatible and observance of certain fundamental business rules will enhance the success of many physicians. Fortunate, indeed, is the man who is both a good physician and a good administrator. May his tribe increase! If these discussions have been helpful to any in making progress toward this goal, our efforts have been amply rewarded.

Sale of Christmas Seals To Get Money To Fight Tuberculosis Under Way

Under the sponsorship of the Ohio Public Health Association, an affiliate of the National Tuberculosis Association, the thirty-third annual sale of Christmas Seals opened in Ohio December 1 and continues until Christmas Day. Funds derived from the sale of the seals are used for an educational campaign against tuberculosis.

Over 100 local organizations in various counties throughout the state will conduct the campaign. Each local organization retains 80 per



cent of the receipts from the sale of seals to carry on community programs. The Ohio Public Health Association receives 15 per cent and the National Tuberculosis Association 5 per cent. Receipts in Ohio last year totaled $277,116.07.

Two Ohioans have made distinctive contributions to this year's Christmas Seal sale and the current campaign against tuberculosis, a recent statement by Dr. Charles A. Doan, Columbus, president of the Ohio Public Health Association pointed out. Rockwell Kent, noted artist and designer of this year's seal, although born in Tarrytown, N. Y., traces his ancestors back to the original founders of Kent, Ohio. Professor W. W. Charters, author of the school health program being used throughout the nation during the Fall months, is director of the bureau of educational research, Ohio State University.

Membership in the Ohio State Medical Association November 14 was 6,338, compared with 6,089 on the same date a year ago, and 6,128 on December 31, 1938. The Association had 5,356 members five years ago.

Administrative Advisor Employed By Industrial Commission

The State Industrial Commission has appointed Marshall Dawson, a consulting actuary, to the position of administrative advisor, for the period of one year. A recognized authority in the field of workmen's compensation, Dawson has been granted a leave of absence from the United States Bureau of Labor Statistics, with which he has been associated for five and one-half years. His most recent accomplishment was a survey of workmen's compensation administration in the United States, Canada and Puerto Rico. In announcing Dawson's employment the Industrial Commission stated that under the arrangement it has made for securing his services for a year, it hopes some progress may be made toward simplifying its procedure, so that the functions of all departments having to do with the investigation and payment of claims may be speeded up.

Coming Meetings

Ohio State Medical Association, Cincinnati, May 14-16, 1940.

American Medical Association, New York, June 10-14, 1940.

American Society of Anesthetists, Los Angeles, Dec. 14.

Northern Tri-State Medical Association, Battle Creek, Mich., April 9, 1940.

Radiological Society of North America, Atlanta, Ga., Dec. 11-15.

Society for the Study of Asthma and Allied Conditions, Philadelphia, Dec. 9.

Society of American Bacteriologists, New Haven, Conn., Dec. 28-30.

Southern Surgical Association, Augusta, Ga., Dec. 5-7.

Western Surgical Association, Los Angeles, Dec. 15-16.

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*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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Activities of County Societies

First District

(COUNCILOR: L. H. SCHRIVER, M.D., CINCINNATI)

HAMILTON

The Academy of Medicine of Cincinnati presented the following programs during November:

November 7—Hospital Night. Case Reports, arranged and presented by the staff of Jewish Hospital. "Lipoid Pneumonia in Adults", by Dr. Philip Wasserman; "Regional Ileitis", by Dr. Sidney N. Mendelsohn; "Prolonged Control of Bone Metastasis by Radiation", by Dr. Archibald Fine; "Hip Fractures Treated With Smith Peterson Pins", by Dr. Joseph A. Freiberg; "Oesophageal Perforation by Foreign Body; Mediastinotomy; Recovery", by Dr. Samuel Seltz; "Intestinal Obstruction in an Infant Simulating Hirschsprung's Disease", by Dr. J. Victor Greenebaum; "A Case of Gout", by Dr. Nathan R. Abrams.

November 14—This meeting was held under the joint auspices of The Heart Council of Greater Cincinnati, the West Virginia Heart Association and the Academy of Medicine of Cincinnati. It marked the inauguration of the Alfred Friedlander Lectureship series and concluded the program of the Sixth Annual Cardio-Vascular Institute. "Pathology of Syphilis of the Cardio-Vascular System", by Dr. Timothy Leary, emeritus professor of pathology, bacteriology and medical jurisprudence, Tufts College Medical School, Boston, Mass.

November 21—Discussion of Three Common Types of Fractures, conducted by Dr. John A. Caldwell. "Fractures of the Elbow", by Dr. Byron E. Boyer; "Fractures of the Wrist", by Dr. Richard J. Weiskittel; "Fractures of the Ankle", by Dr. Nicholas J. Giannestras.

November 28—"Pan-Hysterectomy", by Dr. William H. Weir, clinical professor of gynecology, Western Reserve University School of Medicine, Cleveland. This meeting was held under the auspices of the Cincinnati Obstetrical Society.—Bulletin.

WARREN

Dr. James M. Pierce, Cincinnati, was the speaker at a meeting of the Warren County Medical Society, Tuesday afternoon, November 7, at the Town Hall, Lebanon.—News clipping.

Second District

(COUNCILOR: D. W. HOGUE, M.D., SPRINGFIELD)

GREENE

An interesting lecture on "The Recognition of Skin Cancer" was given by Dr. Harry A. Nieman, Dayton, at a meeting of the Greene County Medical Society, Thursday, November 2, at Xenia. Dr. Ben R. McClellan presented to each member a copy of the booklet, "What It Means To Be a Doctor", by Dwight Anderson. He requested that each member read the booklet and place it in his waiting room.—Donald F. Kyle, M.D., secretary.

MIAMI

Through the courtesy of the Eli Lilly Co., two motion pictures, "Ergotocin" and "Amebiasis", were presented at a meeting of the Miami County Medical Society, Friday afternoon, November 3, at Memorial Hospital, Piqua. Dr. E. R. Irvin, Bradford, spoke on "The Medical Emergencies of General Practice", and Dr. E. T. Pearson, West Milton, discussed "The Surgical Emergencies of General Practice". Dinner was served at the hospital after the meeting.—G. A. Woodhouse, M.D., secretary.

MONTGOMERY

Dr. Albert M. Snell, Rochester, Minn., spoke on "Clinical Notes on the Treatment of Liver Disease With Special Reference to Hemorrhagic Diathesis", at a meeting of the Montgomery

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County Medical Society, Friday evening, November 17, at Dayton.—Mildred E. Jeffrey, executive secretary.

PREBLE

"Respiratory Diseases in Children" was the subject discussed by Dr. S. H. Ashmun, Dayton, at a meeting of the Preble County Medical Society, Wednesday, October 25, at the Court House, Eaton.—News clipping.

Third District

(COUNCILOR: O. P. KLOTZ, M.D., FINDLAY)

LOGAN

An address on "Head Injuries" was made by Dr. Harry E. LeFever, Columbus, at a meeting of the Logan County Medical Society, Friday evening, November 3, at Bellefontaine.—News clipping.

Fifth District

(COUNCILOR: E. P. McNAMEE, M.D., CLEVELAND)

CUYAHOGA

The Academy of Medicine of Cleveland presented the following programs during November:

November 3—Clinical and Pathological Section. "Granulomatous Laryngitis With Endocarditis", by Dr. C. T. Way; "Endocarditis With Bleeding From Bowel", by Dr. Jerome Gross; "Presentation and Discussion of Pathological Findings", by Dr. Raphael Dominguez, Dr. Reuben Strauss and Dr. A. C. Golden.

November 10—Joint Meeting, Experimental Medicine Section and Cleveland Section of the Society for Experimental Biology and Medicine. "Applications of the Frozen-Dehydration Method to Various Problems", by Dr. N. L. Hoerr; "Creatine and Phosphorus in Cardiac Muscle", by G. H. Mangun, Ph.D., and Dr. J. T. Roberts; "The Specificity of the Oxidized and Reduced Ocular Lens Protein", by E. E. Ecker, Ph.D., and L. Pillemer, Ph.D.; "Diphtheria Infection and Morbidity in Cleveland, 1937-1939", by L. M. Schuman, M.Sc., and Dr. J. A. Doull.

November 17—Second Annual William E. Lower Lecture. "Hemoglobin Building in Anemia (With Particular Reference to Iron)", by Dr. George H. Whipple, dean of the School of Medicine and Dentistry of the University of Rochester, Rochester, N. Y.—Bulletin.

GEAUGA

Dr. Walter M. Solomon, Cleveland, explained the various uses and forms of physiotherapy at a meeting of the Geauga County Medical Society, Wednesday, October 25, with Dr. F. S. Basquin at Chardon. The medical program for farm security clients was explained by Mr. Mackey, a representative of the Farm Security Administration. The next regular meeting of the society will be held in April, 1940.—Isa Teed Cramton, M.D., secretary.

Sixth District

(COUNCILOR: R. L. RUTLEDGE, M.D., ALLIANCE)

MAHONING

Dr. Jerome Selinger from the New York Postgraduate School, spoke on "Peptic Ulcer", at a meeting of the Mahoning County Medical Society, Thursday, November 21, at the Youngstown Club. The Lyons Physician Supply Company presented movies and a demonstration of new oxygen therapy. This was followed by a buffet luncheon. —C. A. Gustafson, M.D., correspondent for *The Journal*.

STARK

"Eclampsia" was the subject discussed by Dr. Thomas F. Ross, of the faculty of Ohio State University College of Medicine, Columbus, at a meeting of the Stark County Medical Society, Wednesday evening, November 15, at the Massillon Club.—Clair B. King, M.D., secretary.

Seventh District

(COUNCILOR: CARL GOEHRING, M.D., STEUBENVILLE)

TUSCARAWAS

The Tuscarawas County Medical Society met at the home of its president, Dr. G. I. Goodrich, Dover, Thursday evening, November 16. The scientific program was presented by Dr. George N. Wenger, Massillon, who spoke on "Chronic Colitis". A roundtable discussion of the subject followed his presentation. A committee reported on conferences with county commissioners relative to an understanding regarding payment for medical services to the indigent. A report was made

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GYNECOLOGY—Two Weeks Course April 15, 1940. One Week Personal Course Vaginal Approach to Pelvic Surgery, April 8, 1940.

OBSTETRICS—Two Weeks Course April 29, 1940. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Course starting April 8, 1940. Informal Course every week.

OPHTHALMOLOGY—Two Weeks Course starting April 22, 1940. Informal Course every week.

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by the committee which is redrafting the society's constitution and by-laws. After the meeting a delicious luncheon was served, and the members enjoyed a fine social time until after midnight.—James A. McCollam, M.D., correspondent for *The Journal*.

Eighth District

(COUNCILOR: GEORGE F. SWAN, M.D., CAMBRIDGE)

MORGAN

Members of the Morgan County Medical Society, the county commissioners, county auditor and prosecuting attorney, were dinner guests of Superintendent and Mrs. Dale N. Ellis, Wednesday evening, October 18, at the County Home. The problem of providing medical care for the indigent of Morgan County was discussed.—News clipping.

MUSKINGUM

Dr. F. D. Adams discussed "Pelvic Surgery" at a meeting of the Muskingum County Academy of Medicine, Wednesday night, November 1, at the University Club, Zanesville.—News clipping.

PERRY

At a meeting of the Perry County Medical Society, Wednesday noon, October 18, at the Park Hotel, New Lexington, Dr. Frank J. Lacksen, Columbus, spoke on "Diseases of the Skin".—News clipping.

Tenth District

(COUNCILOR: C. C. SHERBURNE, M.D., COLUMBUS)

FAYETTE

Dr. Harry E. LeFever, Columbus, spoke on "Head Injuries", at a noon meeting of the Fayette County Medical Society, Thursday, November 2, at the Cherry Hotel, Washington C. H. The society voted approval of a diphtheria immunization program of the county health department.

FRANKLIN

The Columbus Academy of Medicine presented the following programs during November:

November 6—"The Clinical Significance of Gastric Motility", by Dr. Frank Hamilton; "Newer Concepts in the Treatment of Diabetes Mellitus", by Dr. Norman Rothermich.

November 20—"An Account of Medical and Surgical Practice in India", by Dr. Morris A. Crothers, Satehgarh, U. P., India.

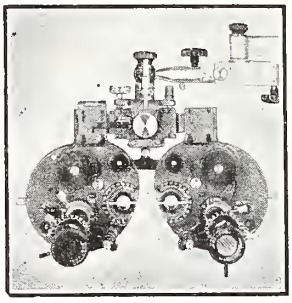
November 27—Section in General Medicine. "Common Rectal Diseases, Diagnosis and Treatment", by Dr. Richard I. Brashear.—Bulletin.

Eleventh District

(COUNCILOR: S. V. BURLEY, M.D., LORAIN)

LORAIN

Dr. Theron S. Jackson, Cleveland, spoke on "Surgery of the Gall Bladder", at a dinner meeting of the Lorain County Medical Society, Tuesday, November 14, at the Elk's Restaurant, Elyria.—L. H. Trufant, M.D., secretary.



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METHODS FOR QUANTITATIVE ESTIMATION OF THE VITAMINS

III. Measurement of Vitamin A Activity

● It was early recognized that vitamin A deprivation in animals resulted in cessation of growth or—if long continued—in the appearance of a characteristic eye condition known as xerophthalmia (1). These two pathologic effects were both utilized in the first methods proposed for quantitative estimation of this essential food factor.

The earliest techniques for determination of vitamin A were similar in that they all first provided for depletion of the body stores of vitamin A of the rat by restriction of the animals to basal rations free from or quite deficient in the vitamin. In the "rat growth" method, the vitamin A activity of the material under assay was estimated by feeding graded dosages to animals depleted of the vitamin (as gauged by cessation of growth) and recording the ensuing growth response (2). In the "curative technique," the incidence of xerophthalmia served as the criterion of vitamin A depletion (3), and vitamin A activity was estimated by determining the dosage of the test material necessary to establish cure of xerophthalmia.

Techniques were also gradually developed which in some instances embodied features of both the growth and curative methods. Still another technique based on the continuous appearance of cornified epithelial cells in vaginal smears—a further characteristic of vitamin A deficiency in female rats—was evolved (4). Further research showed that colorimetric and spectrographic methods may be adapted to the estimation of vitamin A activities of specific materials (5).

Of all methods for estimation of vitamin A in foods, the rat growth technique appears to be favored today (6). Gradual improvements and refinements—as well as recognition of the existence of provitamins A—have led to development of the growth method now included in the U. S. Pharmacopeia XI. This method requires that young rats weighing 40 to 50 grams (at an age not exceeding 28 days when placed on a vitamin A deficient ration) shall manifest symptoms characteristic of vitamin A deficiency within a period of 25 to 45 days. Rats properly depleted of vitamin A reserve are assembled in negative control groups receiving no supplement, reference groups receiving graded doses of the standard reference material, and assay groups receiving graded doses of the assay material. During the ensuing period of not less than 28 days, the test animals are fed daily doses of the proper supplements. The body weights of the animals are recorded at frequent intervals during and at the end of the assay period. From the average gains in body weight of rats in the assay and reference groups, dosages of assay and reference materials, and the vitamin A activity of the standard of reference, the vitamin A activity of the assay material is calculated.

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(1) 1913. J. Biol. Chem. 16, 423 and 255.
(2) 1928. J. Biol. Chem. 78, 671.
(3) 1931. J. Dairy Sci. 14, 229.
(4) 1927. J. Biol. Chem. 73, 153.
(5) 1938. J. Am. Med. Assoc. 111, 245.
(6) 1936. The Pharmacopeia of the United States, Eleventh Decennial Revision, page 478.
(7) 1929. Ind. Eng. Chem. 21, 347.
1936. J. Am. Diet. Assoc. 12, 231.
1936. Mass. Agr. Expt. Sta. Bull. No. 338.
1938. Nutrition Abstracts and Reviews, 8, 281.

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The Physician's Bookshelf

New and Nonofficial Remedies. 1939, ($1.50. *American Medical Association)*, the annually revised list of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association as of January first is published in book form under the title of "New and Nonofficial Remedies." The book contains the descriptions of acceptable proprietary substances and their preparations, proprietary mixtures if they have originality or other important qualities, important nonproprietary nonofficial articles, simple pharmaceutical preparations, and other articles which require retention in the book.

The Recollections of a Country Doctor, by James A. Holley, M.D. ($1.50, *Meador Publishing Company, Boston)*, is the attempt to preserve the memory of the country doctor for posterity. Told in a simple unaffected style, it covers only the interesting highpoints of his life free of all unnecessary details. The story of a full life of service to the citizens of a small hamlet and its country side tells of the changes in 53 years.

Fifty Years a Doctor, by John Kercher, M.D. ($2.00, *Meador Publishing Company, Boston)*, is a companion volume to the one above for it is the story of a Chicago physician and covers all but three years of the times described by Dr. Holley. In addition to the story of the city physician since 1890, it explains why we physicians do not last long at our chosen tasks and therefore is a particularly stimulating book to those of us who have passed fifty.

Laboratory of the Massachusetts General Hospital by Francis T. Hunter, M.D. ($1.75. Third edition. *Lea and Febiger, Philadelphia)* is a handy little pocket volume presenting laboratory tests and bedside procedures upon which the general practitioner may depend with confidence.

Microbiology and Pathology by C. F. Carter, M.D. ($3.25. Second edition. *C. V. Mosby Compan, St. Louis)* gives a good description of bacteria, how they invade the human body, how they injure it, how they are thrown out; designed for nurses.

Journal of Criminal Psychopathology (No. 1, Vol. 1, July, 1939, by V. C. Branham, M.D. *The Press of the Woodbourne Institution for Defective Delinquents, New York City)* has been brought out to encourage and to provide a channel for the prompt publication of clinical investigation, medical and otherwise, into the field of mental abnormalities among criminals. The format is most attractive and the contents of a very high degree of excellence.

Practical Obstetrics by P. Brooks Bland, M.D. and T. L. Montgomery, M.D. (Third edition. *F. A. Davis Company, New York)* presents much new material on toxemias, endocrine physiology, obstetrical anesthesia and the treatment of the newborn. The treatment is brief and direct as it should be in a good text, which this certainly is.

Dr. Colwell's 1940 Daily Log for Physicians. ($6.00. *Colwell Publishing Company, Champaign, Illinois)* still remains the most concise, the simplest and the best book-keeping system for the average physician with which your reviewer is familiar, as 625 Ohio practititioners proved to themselves last year.

Principles of Chemistry by Joseph H. Roe ($3.00. Fifth edition. *C. V. Mosby Company, St. Louis)* is a textbook of chemistry concerning inorganic, organic and physiological chemistry in 503 pages for nurses and students of home economics. It gives a very good picture of chemistry in relation to living things.

Brucellosis in Man and Animals by I. F. Huddleson, D.V.M. ($3.50. *The Commonwealth Fund, New York City)* is a complete up-to-date monograph on a disease about which we all must learn more.

The Mental Side of Golf by K. R. Thompson ($1.50. *Funk and Wagnalls, New York City)* is an exceptionally good application of psychology to this game so popular with doctors.

Maternal Care and Some Complications. F. L. Adair, M.D., Editor, ($1.50. *University of Chicago Press)* is an official attempt to set forth in simple

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and concise form some of the basic principles of material and the management of three major complications—toxemias, hemorrhage and infection. This is a book which every physician who delivers or cares for pregnant women *must* read.

Office Gynecology by J. P. Greenhill, M.D. ($3.00. *Year Book Publishers, Chicago)* is the outgrowth of the author's course on this subject at Cook County Graduate School of Medicine. It is recommended to every general practitioner who wants to take better care of his women patients.

Eye, Ear, Nose and Throat Manual for Nurses by Roy M. Parkinson, M.D. ($2.25. Fourth edition. *C. V. Mosby Company, St. Louis,* is concise, non-technical treatise free from debatable questions and adequately illustrated.

Baptism of the Infant and the Fetus by Rev. J. R. Bowen ($1.25, *M. J. Kneppel Company, Dubuque, Iowa)* is published under official Catholic auspices and outlines the prescribed methods of baptizing Catholic babes. It is directed to Catholic and non-Catholic physicians and nurses who officiate at deliveries. It should be in all of their hands.

Teaching Wholesome Living, by Alma A. Dobbs, ($2.50. *A. S. Barnes & Company, New York City)* is a book for parents and teachers. Emphasis is placed upon the subject, not as such, but as a way of living. It is a most stimulating volume to all who are interested in the health and consequent happiness of our next generation.

The Story of Surgery, by Harvey Graham, ($3.75. *Doubleday, Doran & Company, New York City)* presents the subject from its beginning down to the present. The distinguished English physician who writes under the pseudonym has used a lively, witty, and yet learned style so that his book has an appeal which makes you want to finish it at once. A book which will stand as a classic among medical histories.

Primer of Allergy. by Warren T. Vaughan, M.D., ($1.50. *C. V. Mosby Company, St. Louis)* is a successful attempt on the part of the author of "Practice of Allergy" to present the ABC's of the subject so that the patient may obtain sufficient insight into his problem to cooperate intelligently.

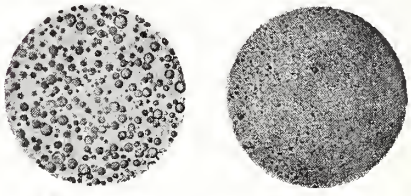
Diseases of the Foot, by Emil D. W. Hauser, M.D., ($6.00. *W. B. Saunders Company, Philadelphia)* is a clear and trustworthy presentation of the most neglected part of orthopedic surgery. It is gratifying to note that medical teachers are now recognizing this neglect. Every physician in general practice should study this book and try to win back his patients who naturally enough have turned to the chiropodist and the "foot specialist."

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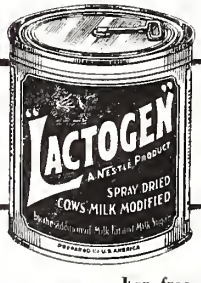
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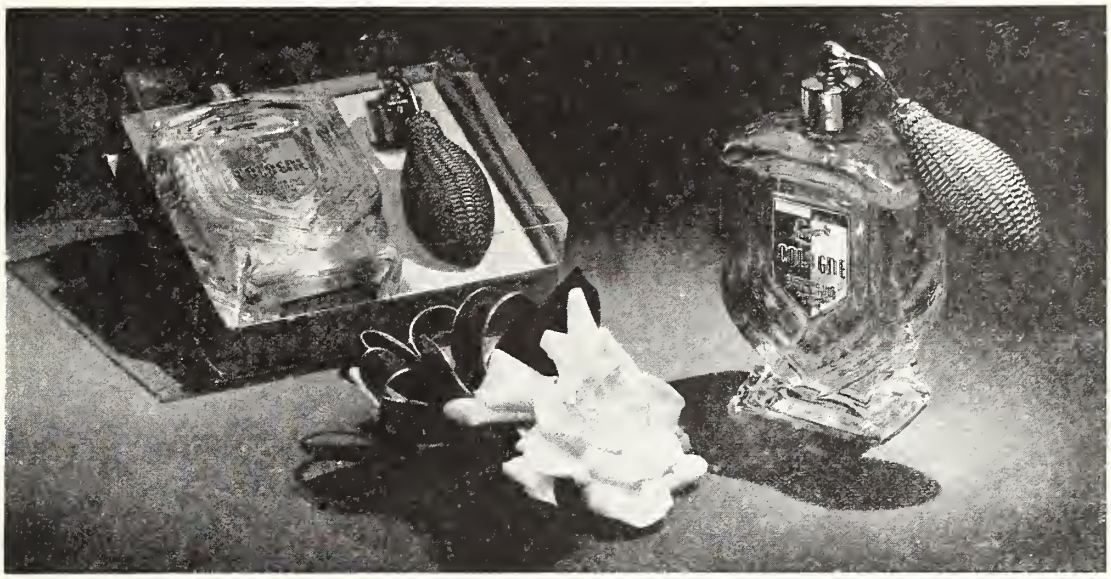


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Psychiatric Institute Held

Physicians from the state's 13 mental institutions attended the fourth annual Institute of Postgraduate Training in Psychiatry and Allied Branches of Medicine at the Columbus State Hospital, October 22 to November 11. Dr. J. F. Bateman, Commissioner of Mental Diseases, was director of the institute, which was sponsored by the State Department of Public Welfare, in cooperation with the Ohio State University College of Medicine. Members of the faculty were: Dr. George M. Curtis, Dr. Charles A. Doan, Dr. Jonathan Forman, Dr. Albert D. Frost, Dr. George T. Harding, Dr. N. Paul Hudson, Dr. Philip T. Knies, Dr. Harry E. LeFever, Dr. Dwight M. Palmer, Dr. R. A. Ramsey, Dr. Norman O. Rothermich, Dr. Roy J. Secrest, Dr. Clayton S. Smith, Dr. Emmerich von Haam, Dr. Franklin C. Wagenhals, Dr. Bruce K. Wiseman, Charles S. Berry, Ph.D., Harold E. Burtt, Ph.D., S. L. Cohen, Ph.D., Henry H. Goddard, Ph.D., Francis N. Maxfield, Ph.D., G. Oscar Russell, Ph.D., Columbus; Dr. Louis J. Karnosh and Dr. Henry C. Schumacher, Cleveland; Dr. Maurice Levine and Dr. Louis A. Lurie, Cincinnati; and Dr. C. C. Kirk, Orient.

Brides and Bridegrooms

Recent marriages of Ohio physicians include the following: Miss Esther Hopkins, Cincinnati, and Dr. Walter J. Brown, Norwood; Miss Shirley Roberts, Massillon, and Dr. James A. McNalley, Canton; Miss Margaret Good, Summerville, Mass., and Dr. Stanley A. Myers, Youngstown; Miss Erma Dotts, Carrollton, and Dr. Francis E. Sauer, Canton; Miss Ruth Ebert, Columbus, and Dr. Donald J. Vincent, Utica; Miss Hildegarde C. Thompson and Dr. Vernon A. Noble, Lima; Miss Mary E. Davy, Evart, Mich., and Dr. Reed C. Prugh, Dayton; Miss Jean B. Long, Lancaster, and Dr. Samuel K. Gerson, Newcomerstown; Miss Eleanor M. Kirk and Dr. D. Duane Kackley, Galion; Miss Dorothy L. White, Warren, and Dr. Kenneth H. Cowdery, Cleveland; Miss Mary L. Radowick, Cleveland, and Dr. John N. McCann, Youngstown.

Columbus—Dr. J. H. J. Upham, dean of Ohio State University College of Medicine, attended a conference on Inter-American Relations in the Field of Education, at Washington, D. C., November 9-10. The conference, called by Secretary of State Cordell Hull, was sponsored by the division of cultural relations of the department of state.

Mansfield—Construction has begun on a three-story addition to Mansfield General Hospital. The project will cost about $40,000, and will provide space for 32 additional beds, a new kitchen and storage space.

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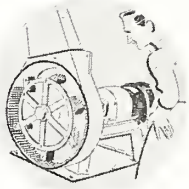
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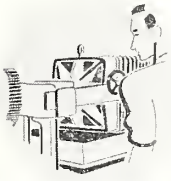


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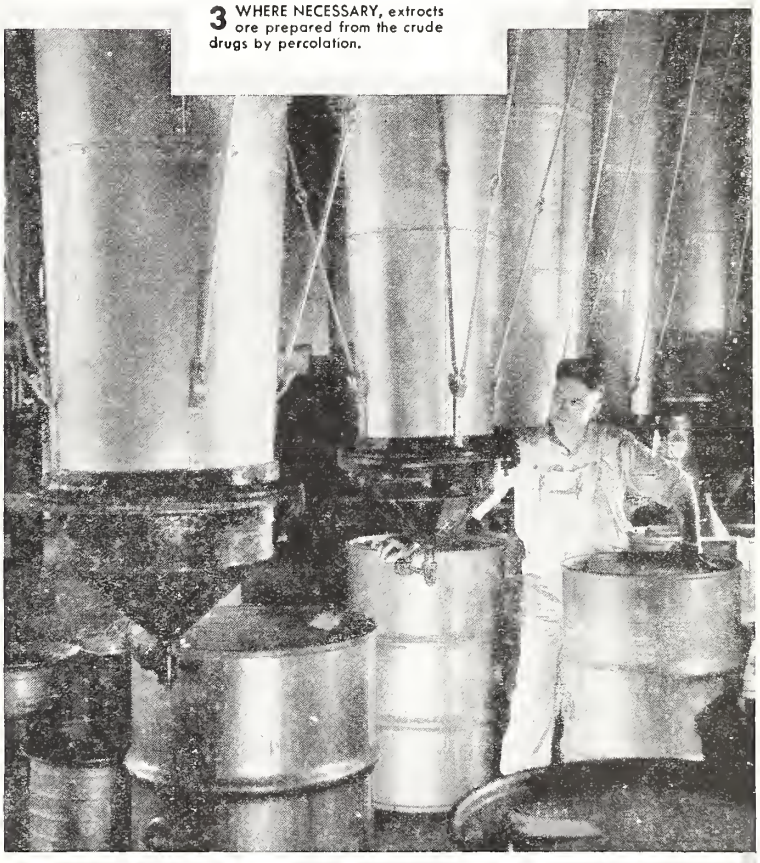
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News Notes

Canton—Dr. Raymond S. Rosedale spoke on "Sinusitis" at a recent meeting of the Malvern Rotary Club.

Columbiana—Dr. Chester W. DeWalt is the new president of the Columbiana County Health League.

East Liverpool—Special tribute was paid to the memory of the late Dr. W. A. Hobbs at a recent meeting of the Kiwanis Club.

Franklin—Dr. Jean A. Nock spoke on "The Relation of Public Health to the Citizen", at a recent meeting of the young people's organization of the Lutheran Church.

Gallipolis—Dr. Charles E. Holzer, sponsor of many civic improvement drives in Gallipolis and Gallia County, has been named general chairman of an executive committee which will have charge of the local 1940 sesquicentennial celebration.

Cleveland—Dr. W. James Gardner spoke on "Intracranial Complications of Upper Respiratory Infections", at a recent meeting of the Ohio County Medical Society at Wheeling, W. Va.

Dayton—Dr. Robert C. Austin spoke on "Tumors of the Breast", and Dr. E. L. Braunlin presented moving pictures of the surgical treatment of carcinoma of the breast and also the use of fascia sutures in the surgical treatment of hernia, at a recent meeting of the Grant County Medical Society at Marion, Indiana.

Delaware—Dr. A. R. Callander has been named supervisor of medical care at the State Girls' Industrial Home.

Marietta—Dr. David E. Sauer, secretary of the Washington County Medical Society, has located in Kingwood, W. Va., where he will be on the staff of the Kercheval Memorial Clinic, Inc.

Old Fort—Dr. C. I. Anders is a new member of the Seneca County Board of Health.

Ravenna—Dr. Bernard H. Nichols is the new chief of staff at Robinson Memorial Hospital.

Urbana—Dr. Mark C. Houston spoke on "Man After 40" at a recent meeting of the local American Legion Post.

Youngstown — Nearly 200 physicians and guests attended the second annual dinner dance of the Mahoning County Medical Society, Saturday evening, October 21, at the Southern Hills Country Club. Dr. Dean A. Nesbit, chairman of the social committee, was in charge of the affair, assisted by Dr. D. M. Rothrock, Dr. Clarence Stefanski and Dr. Paul R. McConnell.

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